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TULARAEMIA INFECTION FOUND IN STREAMS

Doctors Parker, Jellison, Kohls, and Davis of the Rocky Mountain Laboratory of the Public Health Service at Hamilton, Mont., have reported that water in three Montana streams has been found contaminated with *Bacterium tularensis*. Two of these streams are flowing creeks. From one of these, 5- and 10-cc. samples produced characteristic tularaemia infection in guinea pigs. From the other, infection was recovered from two 10-cc. samples. The third stream is a small river which at this time of year normally consists of a succession of large pools. Three successive samples taken over a period of 28 days from one of these pools have all shown contamination, and guinea pigs receiving the following amounts have become infected: Two that received 1 cc., two that received 2½ cc. each, six that received 5 cc. each, and one that received 10 cc. In addition, two guinea pigs that received a small amount of mud from this same pool became infected. A 10-cc. sample from another pool several miles distant was also positive. These findings were made incident to studies of epizootic tularaemia in beaver.

THE DISABLING DISEASES OF CHILDHOOD*

Their Characteristics and Medical Care as Observed in 500,000 Children in 83 Cities Canvassed in the National Health Survey, 1935-1936

II. MEDICAL AND NURSING CARE¹

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The characteristic diseases of childhood are infectious in nature. Supervision of water supplies, sanitary disposal of sewage, and pasteurization of milk contribute to the control of certain of these diseases. By and large, however, the contact-borne infections present the major problem in the control of communicable disease today; and, by establishing the diagnosis and reporting the case, the physi-

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¹ The first report in this series describes the characteristics and leading causes of disabling illness in childhood. Holland, Dorothy F.: The disabling diseases of childhood. Their characteristics and medical care as observed in 500,000 children canvassed in the National Health Survey, 1935-1936. I. Characteristics and leading causes. Pub. Health Rep., 55: 135-156 (1940).

cian takes the first step toward an effective program of prevention. Protection from certain communicable diseases may be secured by the creation of artificial immunity. Periodic medical supervision of well children is a valuable measure for the general promotion of child health. However essential, the development of these preventive health services must not be permitted to obscure the importance of medical care of the sick child as a means of protecting both the sick and the well.

Medical care of the sick child fills the important function of promoting recovery and reducing the incidence of sequelae which immediately or ultimately impair health. On the average, a high recovery rate is characteristic of the diseases of childhood, except in the period of infancy; but deaths of older children from causes to some degree preventable are by no means negligible. In the 3-year period 1933-35, an average of 51 percent of all deaths of children between 1 and 15 years of age were due to the infectious and parasitic diseases, pneumonia, and diarrhea and enteritis. In this period, an annual average of 23,000 deaths of children of these ages were caused by diseases in the infectious and parasitic group, 10,746 by all forms of pneumonia, and 5,458 by diarrhea and enteritis. These deaths measure in part the result of lack of medical care and of delay in summoning medical aid beyond the point at which treatment is effective.

The records obtained in the National Health Survey provide the basis for a general view of the medical and nursing care of disabling illness received in a 12-month period by over 500,000 children in 83 urban communities. The canvass was made in large, medium-sized, and small cities, and the results thus permit an examination of the effect of urbanization on the amount and nature of medical services for the disabling diseases of children. The records relating to annual family income and relief status in the survey year make possible the comparison of the medical care experience of children in different economic groups. The results of the survey analyzed from this standpoint have a practical bearing on certain broad problems involved in the maintenance of child health.

METHOD OF THE SURVEY

The present report is based on the records of medical and nursing care received for disabling illness in a 12-month period by 518,767 white children under 15 years of age in 83 cities canvassed by the United States Public Health Service in the winter of 1935-36. The 83 surveyed cities² were located in 18 States selected in such a manner as to give adequate representation to each geographic area, but the

² A list of the surveyed cities is given in Appendix B of "The National Health Survey: Scope and method of the Nation-wide family canvass of sickness in relation to its social and economic setting," by George St. J. Perrott, Clark Tibbitts, and Rollo H. Britten. Pub. Health Rep., 54: 1663 (1939).

sample is somewhat overweighted with families drawn from cities of 100,000 population and over.³ Internal representativeness of the surveyed population was obtained by making a complete canvass of 51 cities of less than 100,000 population, and sampling⁴ the households of 31 cities of 100,000 population and over, and 1 city of the former population class.

The survey employed the method of the house-to-house canvass, the information concerning the social and economic characteristics of the family and its records of illness and medical and nursing care in a 12-month period being obtained by the enumerator from a lay informant, usually the housewife.⁵

"Illness"⁶ was defined as a disease, injury, or permanent gross impairment, congenital or acquired, which had caused disability for at least 7 consecutive days in a 12-month period falling approximately in the year 1935. In the period of childhood, disability was used in the sense of interference with normal activity, i. e., play of the pre-school child or school attendance of older children. The medical and nursing services in the present report relate to care of disabling illnesses of this category, with the exception of hospitalized illnesses, which include cases unlimited as to duration. Confirmation of the informant's statement of the cause of illness was requested from the attending physician for cases so attended, but the majority of the medical causes of illness are those assigned by the lay informant. The records of medical and nursing care take into account the services received for an entire illness irrespective of the number of diagnoses assigned as causes of the illness. In the present report, however, the classification of illnesses by cause according to specific or broad diagnosis is made on the basis of the sole or primary cause of the illness.

³ The distribution of the surveyed urban population by geographic area agrees closely with that of the total urban population as enumerated in the Federal Census of 1930. The distribution by population class of the city of residence is necessarily somewhat less representative, 74 percent of the surveyed population being drawn from cities of 100,000 and over as compared with 52 percent for the total urban population in 1930. For the cities of 25,000 to 100,000 population, the corresponding figures were: Health Survey, 14 percent; Census of 1930, 39 percent; and for cities of less than 25,000 population: Health Survey, 12 percent; Census of 1930, 29 percent. The scope of the survey permitted only a limited sampling of rural areas in 3 States.

⁴ The sampling procedure consisted of a random selection of districts to be canvassed within each city, the districts used being those outlined for the enumeration of the population in the Federal Census of 1930. Districts containing approximately equivalent units of population were obtained by arbitrary division of the Census enumeration districts having a population in excess of 1,000. The number of such districts to be surveyed was determined by the number of surveyed families required to give a sample adequately representing the given city, and sufficient to produce an urban sample representative of all regions of the country, and, within the limitations of the survey, balanced in respect to size of the cities included. A complete canvass was made of the districts selected in this manner. For a complete description of the sampling procedure, see the publication referred to in footnote 2.

⁵ A reproduction of the survey schedule is included in the publication referred to in footnote 2.

⁶ Certain exceptions to this definition were made. Records of all confinements, hospital cases, and deaths were taken without limitation as to the duration of disability. An additional exception was made in the enumeration of chronic diseases and permanent gross impairments, which were recorded without limitation as to the duration of disability. Chronic diseases or permanent impairments which caused no disability or disability of less than 7 consecutive days' duration are not considered in the present report.

MEDICAL AND NURSING CARE OF DISABLING ILLNESS FROM ALL CAUSES

Age variation in the receipt of medical care.—The illnesses of childhood, except in the period of infancy, are characterized by a shorter mean duration and a higher recovery rate than those of adult life. It may be expected, therefore, that children and adults will differ in respect to the proportion of illnesses receiving medical and nursing care, and the intensity of care received per patient attended. The experience of white persons in 83 cities canvassed in the survey is examined from this standpoint in table 1. Since the number of physicians and nurses, and the facilities of hospitals and their associated out-patient departments tend to vary with the degree of urbanization, the data are presented for the surveyed population in three groups of cities classified by size. Figure 1 shows the results graphically for the large and small surveyed cities only.

Columns 1 and 5 of the table relate to medical attendance of disabling illness by a physician in the home, clinic, or physician's office, but exclude cases receiving only hospital medical care. Furthermore, illnesses receiving care from a physician in the home, office, or clinic in addition to hospital care are counted both as "physician's" and "hospital" cases, but the consultations with a physician received by such cases exclude those received during hospitalization. Columns 2 and 6, designated "hospital—general," represent an approximation of general hospital patients and patient days obtained by excluding all hospitalized cases of tuberculosis and cases of nervous and mental disease or defect which had received institutional care for at least a year; it was assumed that the majority of such cases were hospitalized in special institutions. However, new admissions to hospitals for the mentally diseased during the survey year could not be segregated on the basis of data recorded in the survey, and these cases are, therefore, included in the "general" hospital group. In the interpretation of the data relating to hospital care, it should be noted that the survey enumerators sought information concerning all cases receiving hospital care, without restriction as to the period of disability; it is believed, however, that hospital cases disabled for less than a week were incompletely enumerated.

Reference to the table indicates that the proportion of the disabling illnesses of children under 15 years of age receiving care from a physician was, in general, lower than the proportion of attended illnesses among adults in each group of surveyed cities. In the large cities, the age variation was not marked; in the small cities under 25,000 population, the proportion of children's illnesses receiving home, office, or clinic medical care was notably lower than among adults. The proportion of children's illnesses receiving general hospital care was approximately the same as in old age, but was lower in

both of these periods than among adults between 15 and 65 years of age. This period of adult life includes the child-bearing ages, in which hospital care of women for conditions associated with the puerperal state is frequent. At each age period, the proportion of hospitalized illnesses was lower in the cities under 25,000 population than in the large cities, but the difference was most marked among children and the aged.

TABLE 1.—Age variation in the receipt of medical and nursing care of disabling¹ illness in a 12-month period, in surveyed cities of three population classes—2,152,740 white persons² in 83 cities canvassed in 1935-36

Age period (years)	Percentage of disabling ¹ illnesses receiving specified care				Services per disabling ¹ illness receiving specified care				Number of disabling illnesses
	Medical		Bedside nursing		Medical		Bedside nursing		
	Physician	Hospital—general ³	Private duty nurse ⁴	Visiting nurse	Physician	Hospital—general ³	Private duty nurse ⁴	Visiting nurse	
	Cities of 100,000 and over								
All ages ²	71.0	30.2	3.4	7.7	7.5	19.2	28.7	5.2	253,581
Under 15	68.1	19.5	1.2	13.9	4.3	15.3	18.7	3.2	79,053
15-24	68.5	44.1	2.9	7.0	6.4	15.2	13.3	5.8	32,519
25-64	72.9	⁴ 35.7	4.3	4.6	9.0	⁴ 20.6	23.9	8.0	118,745
65 and over	74.9	19.7	6.7	3.0	11.0	32.6	60.1	14.0	23,264
	Cities of 25,000-100,000								
All ages ²	72.1	23.1	4.8	4.7	7.4	16.2	21.2	6.5	55,900
Under 15	63.9	12.5	1.7	6.2	4.6	11.6	10.8	3.8	17,252
15-24	73.7	32.8	4.5	5.1	6.3	12.6	11.9	5.1	7,925
25-64	76.6	⁴ 29.2	6.3	3.8	8.7	⁴ 17.4	18.3	8.0	25,223
65 and over	74.9	14.7	7.8	3.6	10.5	28.2	46.2	15.7	5,590
	Cities under 25,000								
All ages ²	68.7	18.9	4.4	6.0	7.1	16.7	23.3	5.2	59,431
Under 15	57.6	8.8	1.4	9.2	4.3	11.1	11.3	2.9	20,193
15-24	70.5	27.7	4.7	6.0	6.1	12.5	9.5	4.9	8,744
25-64	75.3	⁴ 25.7	5.9	4.0	8.5	⁴ 18.5	20.1	8.2	24,374
65 and over	75.9	13.1	8.1	3.2	10.2	28.4	50.5	12.2	6,120

¹ Disabling for 7 consecutive days or longer in a 12-month period. All confinements, fatal, and hospital cases are included without reference to the duration of disability. Illness as used here is a continuous period of disability whether due to a single cause or multiple causes.

² Exclusive of persons of unknown age or unknown income.

³ Cases receiving hospital care are exclusive of all hospitalized cases of tuberculosis, and cases of nervous and mental disease or defect in institutions for 12 months. These exclusions leave a group of hospital cases which roughly approximates patients treated in general and special hospitals, exclusive of hospitals for the tuberculous and the mentally diseased. Since the type of institution in which care was received was not recorded in the survey, a more exact definition of general hospital patients is not possible.

⁴ Excluding also hospitalized confinements terminating in live births, the proportion of disabling illnesses hospitalized was as follows: Cities of 100,000 and over, ages 15-24, 35.7 percent, ages 25-64, 30.7 percent; cities of 25,000 to 100,000, ages 15-24, 28.0 percent, ages 25-64, 25.9 percent; cities under 25,000, ages 15-24, 24.7 percent, ages 25-64, 23.2 percent. The corresponding average hospital-patient days were as follows: 17.9 (ages 15-24), 23.7 (ages 25-64) in cities of the first class; 14.9 (ages 15-24), 19.6 (ages 25-64) in cities of the second class; 13.8 (ages 15-24), 20.4 (ages 25-64) in cities of the third class.

⁵ Includes attendance in home or hospital.

In each group of cities, the illnesses of children receiving medical care were given less intensive care than the attended illnesses of adults. Among children under 15 years of age, the average attended

case of disabling illness had approximately 4 consultations with a physician, exclusive of hospital visits; in youth, the average was 6 consultations; in the adult ages between 25 and 65, approximately 9; and in old age, between 10 and 11 consultations.

The average length of stay in the hospital per child patient in the large cities was 15.3 days; among adults 25 to 64 years of age, 20.6 days; and among the aged, 32.6 days; in youth, the average number of hospital patient days was approximately the same as in childhood. In the cities under 25,000 population, the average hospital duration

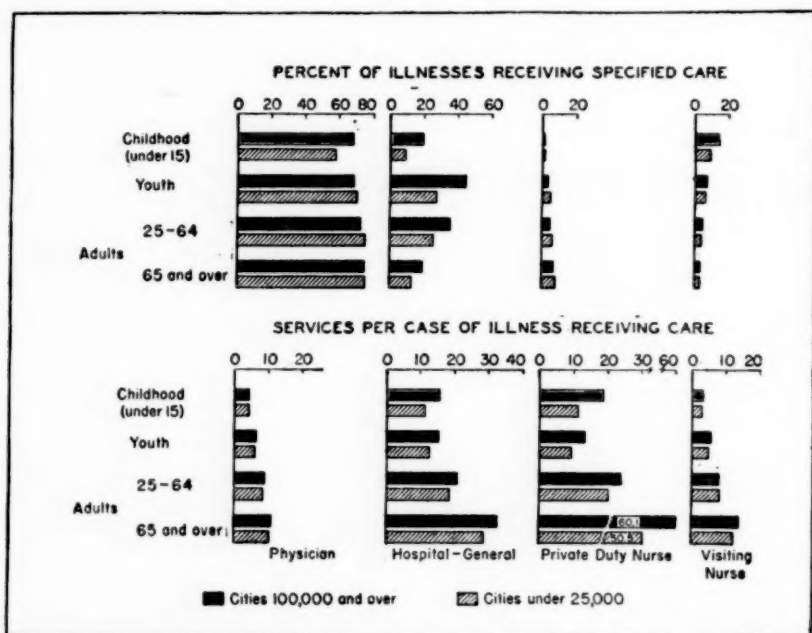


FIGURE 1.—Percentage of disabling illnesses occurring in a 12-month period which received medical and nursing care, and services per disabling illness receiving care, by age—1,581,577 persons in 31 cities of 100,000 population and over, and 267,953 persons in 42 cities under 25,000 population canvassed in 1935-36. Cases of illness receiving hospital care are exclusive of all hospitalized cases of tuberculosis, and cases of mental and nervous disease in institutions for 12 months.

was somewhat lower at each age period than in the large cities, but the relative variation by age was of the same nature. In general, the average length of stay in the hospital observed in the survey exceeds the average for general hospitals as usually reported. The lack of agreement arises from the fact that the survey cases designated "general" hospital patients include the residual group of the mentally diseased admitted to special institutions during the survey year, and exclude certain hospital cases disabled for less than a week which were incompletely enumerated.

The low average intensity of medical care given to children's illnesses results from the fact that the majority of child patients are

treated for diseases of low severity and a favorable prognosis. As age increases, the severity of illness increases, and medical care is required in correspondingly greater amount.

In comparison with illnesses attended by a physician, the proportion of illnesses receiving bedside nursing care was relatively low at each age period. The visiting nurse was used more frequently than the private duty nurse for bedside nursing care of the illnesses of children; with increasing age, there was, in general, an increasingly higher proportion of illnesses cared for by a private duty nurse, and a decrease in the proportion of illnesses attended by a visiting nurse. The amount of bedside nursing care received, measured as days of care by the private duty nurse or visits of the visiting nurse, was, in general, lower among children than among adults, exclusive of the period of youth.

Income and medical care of childhood illness.—While the illnesses of childhood received, on the average, less medical care than those of adults, measured both in terms of the proportion of illnesses treated and the amount of care per patient, it was found that the experience of children in families at different income levels showed a wide departure from the average. This relationship is shown in table 2, in which the results are again presented separately for children in three groups of surveyed cities classified by size.

Care was given by a physician (exclusive of hospital medical care) in 80 percent of the disabling illnesses of children in families with an income of \$3,000 and over in the large surveyed cities; in relief families in these cities, only 65 percent of the illnesses of children received "home or office" medical care. With decreasing urbanization, represented by the intermediate and small surveyed cities, the proportion of childhood illnesses receiving care from a physician was lower than in the large cities at each income level, but the relative difference between the lowest and highest income groups was of the same order as in the large cities.⁷ A similar association between income and the intensity of care received from a physician was observed. In families with an income of \$3,000 and over, each child patient received, on the average, about 5 consultations with a physician in the home, clinic, or physician's office; in relief families, the average was about 4 consultations.

Further examination of the data in table 2 indicates that the proportion of children's illnesses attended by a physician (exclusive of hospital treatment), and the intensity of such care, was approximately the same in self-sustaining families with income below \$1,000 as in fami-

⁷ In the rural areas of 16 counties canvassed in Georgia, the proportion of the disabling illnesses of Negro children receiving care from a physician was notably low. Only 39 percent of 680 disabling illnesses recorded among Negro children under 15 years of age received care from a physician, exclusive of hospital medical care; among white children, the comparable figure was 64 percent (1,479 disabling illnesses being recorded). The results of the survey of children in rural areas will form the subject of another report in this series.

lies on relief; and at the next income level (income between \$1,000 and \$2,000), the amount of care did not greatly exceed that in the two lowest income groups. In this survey the proportion of all disabling illnesses of children under 15 years of age occurring in families below the \$2,000 income level ranged from 82 percent in the large cities to 87 percent in the cities under 25,000 population. Thus, the majority of

TABLE 2.—*Variation in the receipt of medical and nursing care of disabling ¹ illness in childhood according to income in a 12-month period, in surveyed cities of three population classes—518,767 white children ² under 15 years of age in 83 cities canvassed in 1935-36*

Income class	Percentage of disabling ¹ illnesses receiving specified care				Services per disabling ¹ illness receiving specified care				Percent- age distribution of disabling ¹ illnesses by income
	Medical		Bedside nursing		Medical		Bedside nursing		
	Physi- cian	Hos- pital— general ³	Private duty nurse ⁴	Visit- ing nurse	Physi- cian	Hos- pital— general ³	Private duty nurse ⁴	Visit- ing nurse	
Cities of 100,000 and over									
All incomes ²	68.1	19.5	1.2	13.9	4.3	15.3	18.7	3.2	100.0
Relief.....	65.1	24.3	.4	19.5	3.9	19.6	20.2	3.7	27.2
Nonrelief:									
Under \$1,000.....	63.0	19.6	.6	13.5	4.3	15.9	15.2	3.2	15.8
\$1,000—\$2,000.....	68.4	17.5	1.1	12.3	4.3	13.4	19.3	2.7	39.1
\$2,000—\$3,000.....	74.5	16.7	2.1	10.5	4.6	9.5	17.9	2.8	11.7
\$3,000 and over.....	80.2	16.1	5.8	7.7	5.4	9.8	19.0	2.5	6.3
Cities of 25,000—100,000									
All incomes ²	63.9	12.5	1.7	6.2	4.6	11.6	10.8	3.8	100.0
Relief.....	60.9	14.9	.4	10.3	4.1	14.0	5.8	3.6	26.1
Nonrelief:									
Under \$1,000.....	60.3	10.9	.8	5.4	4.4	12.1	10.4	4.5	21.7
\$1,000—\$2,000.....	64.2	11.4	1.6	5.0	5.0	10.3	11.1	4.1	36.9
\$2,000—\$3,000.....	71.2	12.9	3.1	3.8	4.7	9.8	12.5	2.0	9.7
\$3,000 and over.....	76.7	13.3	8.9	1.8	5.5	7.9	10.8	4.2	5.6
Cities under 25,000									
All incomes ²	57.6	8.8	1.4	9.2	4.3	11.1	11.3	2.9	100.0
Relief.....	52.6	7.8	.5	13.4	3.9	17.1	6.0	3.1	25.6
Nonrelief:									
Under \$1,000.....	54.0	8.2	1.0	9.0	4.3	12.3	10.4	2.8	24.6
\$1,000—\$2,000.....	59.7	9.2	1.4	8.3	4.4	8.7	9.8	2.8	36.3
\$2,000—\$3,000.....	66.5	10.4	3.2	4.5	4.7	7.5	14.6	2.6	9.3
\$3,000 and over.....	71.6	11.8	3.6	4.6	5.1	4.5	15.7	1.4	4.2

¹ See footnote 1, table 1.

² Exclusive of children of these ages in families for which income was reported as unknown.

³ See footnote 3, table 1.

⁴ See footnote 5, table 1.

childhood illnesses occurred in the economic groups in which the proportion of cases receiving care from a physician, and the amount of care per case, was relatively low. In this connection it should be recalled that the illnesses of children considered here had caused disability of at least a week's duration, and medical supervision may be assumed to be necessary for the majority of such cases.

In the small surveyed cities, the proportion of the illnesses of children receiving medical care in the hospital was lowest in relief families, and increased progressively as family income increased. In the large cities, however, this association was reversed, the proportion of the illnesses of children which were hospitalized being highest in relief families, and decreasing as family income increased. This situation reflects the greater demand for hospital care resulting from the congested housing conditions of low income families in the large cities, and the more abundant supply of free hospital facilities by which this demand can be met. The relation will be further clarified in the discussion of the data shown in table 3.

The association between family income and the type of nurse employed for bedside nursing care of the sick, i. e., private duty or visiting nurse, reflects the method of meeting the costs of these services. The bedside nursing care given by visiting nurses is provided largely without cost to the patient, while the costs of private duty care are met from private income. The relation observed in this survey between family income and the receipt of bedside nursing care for the illnesses of children was consistent with these facts. A relatively high proportion of children's cases in low income families received care from a visiting nurse, while the proportion of cases in these families cared for by a private duty nurse was negligible. The essential question presents itself: Does the bedside nursing care provided by visiting nurses for the illnesses of children in low income families meet their needs as adequately as the care given by the private duty nurse? The question is raised since such a consideration should underlie the interpretation of the relation observed between economic status and the type of bedside nursing care received. Data bearing on the question are, however, beyond the scope of the present survey.

Additional factors of importance in analyzing the association between economic status and hospital care are considered in table 3, in which the hospital cases of children are classified in two broad groups according to the type of treatment received, i. e., medical and surgical. The figures in this table indicate that the proportion of children who became hospital patients during the survey year (as distinguished from the proportion of illnesses which were hospitalized) was notably higher in the large cities than in the intermediate and small cities. This excess is not the result of a higher incidence of illness (since the frequency rate of illness was found to be lowest in the large cities⁸), but is due, in part, to a relatively higher frequency of medical hospital cases. Among children under 15 years of age, the frequency rate of medical hospital cases in the large cities was 15 per 1,000; in the small cities it was about 7 per 1,000. On the other hand, the frequency of

⁸ See article referred to in footnote 1.

surgical hospital cases showed relatively smaller variation, the frequency rate in the large cities being 27 per 1,000 children under 15 years, and in the small cities 20 per 1,000.

It is notable, furthermore, that the frequency rate of medical hospital cases in the large cities decreased consistently with rise in income, while the frequency of surgical hospital cases increased with increasing

TABLE 3.—*Frequency rate in a 12-month period of hospital cases¹ classified as medical and surgical, and of nonhospitalized surgical cases, according to income, among children in surveyed cities of three population classes—518,767 white children² under 15 years of age in 83 cities canvassed in 1935-36*

Income class	Cases per 1,000 persons under 15				
	Hospital			Surgical, treated in home, clinic, or physician's office ¹	Surgical, total hospital and non- hospital
	Total	Medical	Surgical		
Cities of 100,000 and over					
All incomes ¹	41.7	14.9	26.7	10.0	36.7
Relief.....	59.5	26.9	32.6	7.9	40.5
Nonrelief:					
Under \$1,000.....	37.8	14.9	22.9	9.4	32.3
\$1,000-\$2,000.....	34.8	10.7	24.1	10.2	34.3
\$2,000-\$3,000.....	36.9	8.8	28.1	13.5	41.5
\$3,000 and over.....	39.0	7.6	31.4	11.6	42.9
Cities of 25,000-100,000					
All incomes ¹	27.8	8.7	19.1	12.7	31.7
Relief.....	36.2	14.1	22.1	9.7	31.8
Nonrelief:					
Under \$1,000.....	21.6	7.7	13.9	10.9	24.8
\$1,000-\$2,000.....	24.5	6.1	18.4	14.2	32.6
\$2,000-\$3,000.....	31.6	6.5	25.1	14.7	39.9
\$3,000 and over.....	36.2	10.8	25.5	20.7	46.1
Cities under 25,000					
All incomes ¹	26.9	6.5	20.4	12.4	32.8
Relief.....	26.2	7.6	18.6	13.1	31.7
Nonrelief:					
Under \$1,000.....	22.3	3.3	17.0	9.4	26.5
\$1,000-\$2,000.....	27.8	6.6	21.2	12.5	33.7
\$2,000-\$3,000.....	33.3	5.5	27.9	17.4	45.3
\$3,000 and over.....	41.5	10.3	31.2	17.7	48.9

¹ Includes (1) cases in which the hospitalized illness or injury was the sole cause of disability; (2) cases in which multiple causes were assigned to the illness, and hospital care was received for the primary, or any contributory, cause of the illness. In enumerating hospital cases, no limitation was imposed concerning the duration of the disability.

² Exclusive of children of these ages in families for which income was reported as unknown.

³ Includes only illness disabling for 7 consecutive days or longer in the survey year which received surgical treatment as specified.

income, if the rate for children in relief families be excepted. The association between income and the frequency of surgical cases treated outside the hospital was likewise direct, the lowest rate being observed in the lowest income group, with a progressive increase in succeeding income classes.

It appears, then, that low income families in the large cities tend to hospitalize certain medical cases of children which families in the

higher income groups care for at home. The higher frequency rates of these cases in the low income groups do not imply that care of these cases is more adequate among the poor, but indicate only that a higher proportion of medical cases are treated outside the home.

MEDICAL AND NURSING CARE OF THE DISEASES OF CHILDREN CLASSIFIED BY CAUSE⁹

Diseases of children treated by the physician and nurse.—The diseases of children which predominate among the child patients of the physician and nurse may be illustrated by the records of children in the large surveyed cities, shown in table 4; the experience of children in the intermediate and small cities shows no essential differences, and is therefore omitted.

The combined frequency rate of disabling illness due to the communicable diseases, tonsillitis, and other minor respiratory diseases among surveyed children in these large cities represented 75 percent of the rate for all causes of illness in a 12-month period. It is thus consistent with the high incidence of these diseases that they were most frequent among children's illnesses treated by a physician, accounting for 71 percent of the physicians' child patients. Illnesses due to these causes, however, absorbed only 54 percent of the physicians' services for children. On the other hand, the less frequent cases of pneumonia, the major chronic diseases, orthopedic impairments, and accidental injury together represented only 15 percent of the physicians' child patients, but absorbed 28 percent of their services for children. Illnesses due to causes included in the latter group are relatively severe and require intensive medical supervision. Reference to the figures shown in table 6 (page 242) indicates that the average case of pneumonia among children under 15 years of age in the large surveyed cities received 8.9 consultations with a physician; for rheumatism, the average was 10.1 consultations; for orthopedic

⁹ For the purpose of a broad classification of the causes of disabling illness in childhood, four groups of diseases having certain common characteristics have been used. By excluding influenza, tuberculosis, and specific infections of the intestinal tract from the specific infectious diseases, a new *communicable* group has been established which comprises mainly the common communicable diseases of childhood: measles, mumps, chickenpox, whooping cough, scarlet fever, and diphtheria. Influenza has been combined with the diseases of the nose, throat, and lungs (except respiratory tuberculosis) to form the *respiratory* group which, in childhood, includes largely acute diseases: tonsillitis, colds, pneumonia, and bronchitis, in addition to influenza. The specific infectious diseases of the intestinal tract have been combined with other diseases of the digestive system to form the *digestive* group, which includes appendicitis, indigestion, biliousness, diarrhea and enteritis, ulcer of the stomach or duodenum, and diseases of the gall bladder or liver. Finally, tuberculosis, all forms; nervous and mental disease or defect; cancer; rheumatism; diabetes; cerebral hemorrhage and other forms of paralysis; diseases of the heart, arteriosclerosis and high blood pressure, and other diseases of the circulatory system, exclusive of hemorrhoids and varicose veins; and nephritis and other nonvenereal diseases of the genitourinary system, exclusive of circumcision and diseases of the female genital organs, have been combined under the group of major chronic diseases. By definition, certain chronic diseases of the respiratory and digestive systems are included, respectively, in the respiratory and digestive groups; however, the incidence of these chronic diseases is relatively low in childhood, and among children under 15 years of age the respiratory and digestive groups of diseases as used here comprise chiefly acute diseases.

cases, 14.3; for accidental injuries, 6.5 consultations. A relatively lower amount of care per patient was received for illnesses due to the communicable diseases, which received, on the average, 3.5 consulta-

TABLE 4.—Frequency rate of disabling¹ illness receiving treatment from a physician, private duty or visiting nurse, and of physicians' and nurses' services, among 873,446 surveyed white children under 15 years of age in 31 cities of 100,000 population and over canvassed in 1935-36—disabling¹ illness from all causes and illness due to selected diseases or groups of diseases occurring in a 12-month period—sole or primary causes only

Diagnosis	Disabling ¹ illnesses receiving specified care per 1,000 persons under 15 years				Services for disabling ¹ illness per 1,000 persons under 15 years			Frequency rate (disabling ¹ illnesses per 1,000 persons under 15 years)
	Physician (home, office, or clinic)	Private duty nurse		Visiting nurse	Physician (home, office, or clinic)	Private duty nurse, ⁷ home and hospital	Visiting nurse	
		Hospital	Home					
All causes.....	144.2	1.07	1.53	29.53	623.9	48.61	93.71	211.7
Communicable diseases ²	58.4	.11	.69	21.41	203.6	15.64	57.43	93.4
Diseases of the respiratory system, total.....	51.0	.36	.66	5.01	192.2	15.21	19.56	73.9
Tonsillitis.....	20.0	.17	.10	1.65	50.3	.87	4.06	25.7
Other minor respiratory diseases ³	24.4	.04	.24	2.39	82.8	5.73	7.91	40.7
Pneumonia.....	6.6	.15	.32	.97	59.1	8.61	7.59	7.5
Diseases of the digestive system, total.....	5.9	.28	.01	.38	25.2	3.86	1.83	7.0
Appendicitis.....	3.4	.25	(*)	.16	14.3	3.08	.75	3.8
Other digestive diseases ⁴	2.5	.03	.01	.22	10.9	.78	1.08	3.2
Major chronic diseases.....	5.8	.05	.06	.63	50.4	3.40	4.50	7.9
Tuberculosis, all forms.....	.301	.06	2.8	.10	.50	.5
Nervous and mental diseases ⁵	1.7	.03	.01	.18	12.2	.86	.96	2.7
Rheumatism.....	1.0	(*)	.01	.11	10.2	1.22	.98	1.2
Degenerative diseases ⁶	2.8	.02	.04	.28	25.2	1.22	2.06	3.5
Orthopedic impairments.....	.8	.02	(*)	.13	10.9	.81	1.40	1.2
Accidents.....	8.8	.07	.02	.40	86.8	5.07	1.67	10.8
All other causes.....	13.5	.18	.08	1.56	84.8	4.54	7.23	17.4

* The rate is 0.003 per 1,000, representing 1 illness of this category.

¹ See footnote 1, table 1.

² Include chiefly the communicable diseases of childhood: measles, mumps, chickenpox, whooping cough, scarlet fever, and diphtheria.

³ Include influenza, colds, bronchitis, pleurisy, sinusitis, asthma, hay fever, and other diseases of the respiratory system except tonsillitis, pneumonia, and respiratory tuberculosis. In the period of childhood, the minor respiratory diseases predominate.

⁴ Include indigestion, biliousness, diarrhea and enteritis, ulcer of the stomach or duodenum, diseases of the gall bladder or liver, and other diseases of the digestive system except appendicitis.

⁵ Include mental defects.

⁶ Include cancer; diabetes; cerebral hemorrhage and other forms of paralysis; diseases of the heart, arteriosclerosis and high blood pressure, and other diseases of the circulatory system, exclusive of hemorrhoids and varicose veins; nephritis and other nonvenereal diseases of the genitourinary system, exclusive of diseases of the female genital organs.

⁷ In this survey the days of care by a private duty nurse in the home and hospital were not recorded separately.

tions; for tonsillitis, the average was 2.5, and for other minor respiratory diseases, 3.4 consultations.

The communicable and minor respiratory diseases occurred in about the same proportion among children's illnesses receiving bedside nursing care from a private duty nurse in the home as among those attended by a physician. Cases of pneumonia represented a relatively large proportion of the private duty nurses' child patients, and accounted for 18 percent of the total days of private duty nursing care received by children in the home or hospital.

The communicable and minor respiratory diseases accounted for 86 percent of the child patients of visiting nurses, and for 74 percent of their visits to children. Only 2.6 percent of all children's illnesses attended by a visiting nurse were included in the group of major chronic diseases and orthopedic impairments, and these cases received only 6.3 percent of the nurses' visits. Pneumonia accounted for 3 percent of all children's cases attended by a visiting nurse and absorbed 8 percent of all nursing visits to children.

Diseases of children receiving hospital care.—The frequency rates of hospitalized cases among children under 15 years of age according to cause are shown in figure 2, which includes rates for surveyed children

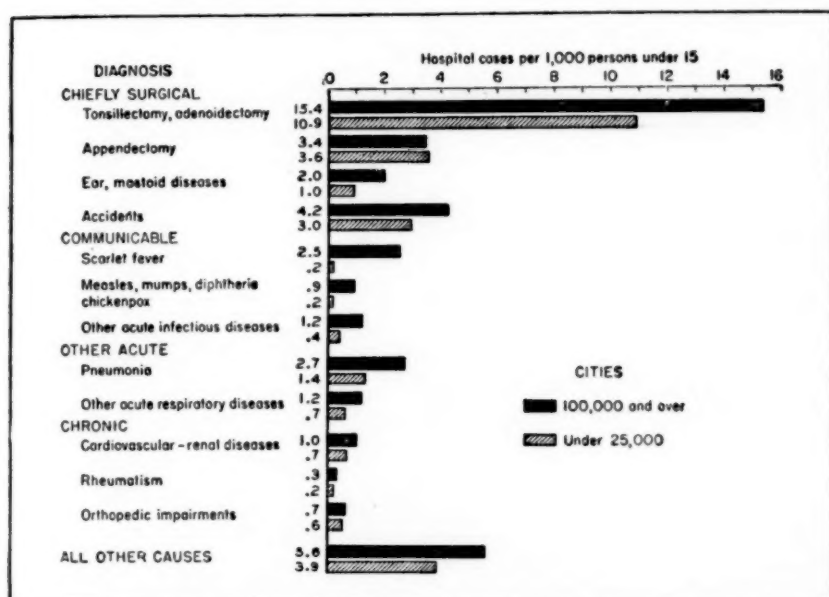


FIGURE 2.—Frequency rate of hospital cases classified by cause among children under 15 years of age in 31 cities of 100,000 population and over and in 42 cities under 25,000 population canvassed in 1935-36. "All other causes" is exclusive of all hospitalized cases of tuberculosis and of cases of mental and nervous disease or defect in an institution for 12 months.

in the large cities and in cities under 25,000 population. The hospital cases considered represent chiefly those treated in general and special hospitals, exclusive of institutions for the care of the tuberculous and mentally diseased.

In the surveyed cities of 100,000 population and over, the total incidence of "general" hospital cases among children under 15 years of age was 41.2 per 1,000 persons of these ages; in the cities under 25,000 population, the rate was 26.6. These rates are equivalent to a ratio of one hospital patient for every 24 children under 15 years of age in the large cities, and 1 patient for every 38 children in the small cities.

As a group, cases chiefly surgical in nature¹⁰ were most frequent among the hospitalized illnesses of children. Diseases of the tonsils and adenoids, appendicitis, diseases of the ear and mastoid process, and accidents together accounted for 61 percent of the hospitalized illnesses of children in the large cities, and for 69 percent in the small cities. Diseases of the tonsils and adenoids alone accounted for 37

TABLE 5.—Percentage of disabling¹ illnesses receiving no medical care, by cause in broad diagnosis groups according to income, among children in surveyed cities of three population classes—sole or primary causes only—518,767 white children² in 83 cities canvassed in 1935-36

Diagnosis	Percentage of disabling illnesses receiving no medical care					
	All incomes ²	Relief status and annual family income				
		Relief	Nonrelief			
			Under \$1,000	\$1,000-\$2,000	\$2,000-\$3,000	\$3,000 and over
Cities of 100,000 and over						
All causes.....	27	28	32	28	23	18
Communicable diseases ³	37	37	43	38	31	22
Minor diseases of the respiratory system except tonsillitis ⁴	39	44	46	39	31	27
All other causes.....	9	10	11	9	7	6
Cities of 25,000-100,000						
All causes.....	34	36	38	34	27	21
Communicable diseases ³	49	53	54	49	39	32
Minor diseases of the respiratory system except tonsillitis ⁴	39	45	46	37	29	22
All other causes.....	10	12	12	9	6	5
Cities under 25,000						
All causes.....	41	46	45	39	33	26
Communicable diseases ³	54	60	58	51	43	31
Minor diseases of the respiratory system except tonsillitis ⁴	43	47	48	40	36	33
All other causes.....	13	17	16	10	7	11

¹ See footnote 1, table 1.

² Exclusive of children of these ages in families for which income was reported as unknown.

³ For the diseases included, see footnote 2, table 4.

⁴ For the diseases included, see footnote 3, table 4.

percent of all child hospital patients in the large cities, and for 41 percent in the small cities.

Practice in regard to the hospitalization of the acute communicable diseases of children showed characteristic differences with degree of urbanization, the frequency of these cases being relatively higher in

¹⁰ The frequency rates shown in figure 2 are based on the total hospital cases, including both nonsurgical and surgical cases. The latter predominate, however. Thus, in the cities of 100,000 population and over, tonsillectomies were performed on 98 percent of the hospitalized cases of tonsillitis, appendectomies on 94 percent of the cases of appendicitis; surgical treatment was given in 84 percent of the cases of ear and mastoid disease, and in 68 percent of the accident cases. In the cities under 25,000 population, the corresponding figures were: tonsillitis, 99 percent; appendicitis, 97 percent; diseases of the ear and mastoid, 84 percent; and accidents, 75 percent.

the large than in the small cities. Hospitalized cases of pneumonia were relatively frequent in both groups of cities.

Medical care of childhood illness classified by cause and income.—In a preceding section, the association between family income and medical care of childhood illness has been examined, treatment received from a physician in the home, office, or clinic, and hospital medical care being considered separately. These groups are not mutually exclusive, since certain cases treated in the hospital were also cared for by a physician prior to or following hospitalization. This duplication can be eliminated by considering all illnesses receiving

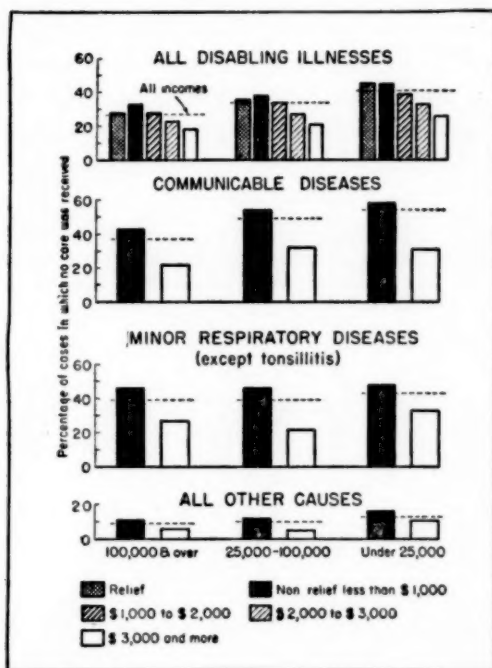


FIGURE 3.—Percentage of disabling illnesses occurring in a 12-month period which received no medical care, among surveyed children under 15 years of age classified by size of the city of residence according to annual family income; and, for children in families with annual income under \$1,000 (not on relief) and in families with annual income of \$3,000 and over, the percentage of disabling illnesses due to certain broad groups of diseases which received no medical care—83 cities canvassed in 1935-36.

medical care from a physician, whether in the home, office, clinic, or hospital. Such illnesses form the basis for the rates shown in table 5, the proportion of unattended illnesses representing cases receiving no medical care from a physician in the home, clinic, hospital, or physician's office. The proportion of children's illnesses receiving no medical care in a 12-month period is shown for all causes of illness, and for two major groups of children's diseases, according to relief status and family income. Figure 3 presents the results graphically, the percentage of unattended illnesses by cause being shown only for

children in a low income group (nonrelief, income less than \$1,000) and in the class with an income of \$3,000 and over.

The results indicate that the largest proportion of unattended illnesses were included in the communicable and minor respiratory groups, exclusive of tonsillitis. In the large cities, 37 percent of all disabling illnesses due to the communicable diseases, and 39 percent of all cases of minor respiratory disease, exclusive of tonsillitis, received no medical care in the survey year, compared with 9 percent for all other causes of illness. In the small cities under 25,000 population, 54 percent of all disabling illnesses due to the communicable diseases were without medical attendance. The proportion of unattended illnesses decreased with increasing family income, but at each income level the proportion of illnesses receiving no medical care was found to be highest in the groups including illnesses due to the communicable and minor respiratory diseases, exclusive of tonsillitis.

TABLE 6.—Physicians' services per case of disabling¹ illness attended for selected causes according to income, among 373,446 surveyed white children² under 15 years of age in 31 cities of 100,000 population and over—sole or primary causes only

Diagnosis ³	Services per case treated by a physician (home, office, or clinic)					
	All incomes ²	Relief	Nonrelief			
			Under \$1,000	\$1,000-\$2,000	\$2,000-\$3,000	\$3,000 and over
All causes.....	4.3	3.9	4.3	4.3	4.6	5.4
Communicable diseases.....	3.5	3.0	3.3	3.4	4.1	4.8
Diseases of the respiratory system:						
Tonsillitis.....	2.5	2.3	2.6	2.5	2.6	2.9
Other minor respiratory diseases.....	3.4	3.0	3.0	3.4	3.6	4.4
Pneumonia.....	8.9	6.8	8.5	10.1	10.8	12.4
Diseases of the digestive system:						
Appendicitis.....	4.2	3.2	4.7	4.4	4.7	4.3
Other digestive diseases.....	4.4	4.0	4.4	4.6	4.6	5.5
Major chronic diseases:						
Tuberculosis, all forms.....	10.0	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
Nervous and mental diseases.....	7.1	5.9	7.3	7.9	8.4	⁵ 7.1
Rheumatism.....	10.1	7.1	12.3	9.2	14.1	⁵ 19.4
Degenerative diseases.....	8.9	6.8	8.4	8.8	12.5	15.0
Orthopedic impairments.....	14.3	15.5	14.7	12.7	⁵ 12.4	⁵ 21.0
Accidents.....	6.5	6.3	6.9	6.3	6.2	7.8
All other causes.....	6.2	5.2	5.8	6.6	7.0	9.1

¹ See footnote 1, table 1.

² Exclusive of children of these ages in families for which income was reported as unknown.

³ For the definition of the diagnosis groups, see footnotes to table 4.

⁴ The rate is shown for "all incomes" only because of the small number of cases.

⁵ The rate represents the experience of 25 treated cases or less.

The illnesses of children in families in the upper income groups which had been attended by a physician received more intensive care than the attended cases in low income families, as is shown in table 6. The average attended case of communicable disease among children in relief families received 3 visits, compared with almost 5 visits per attended case among children in families with an income of \$3,000

and over. For pneumonia, the average number of visits per attended case was approximately 7 among children in relief families, compared with 12 visits among children in the highest income group; for tonsillitis, the corresponding figures were 2, compared with 3 visits; and for other minor respiratory diseases, 3, compared with 4 visits. The same tendency toward more intensive care in the upper income families was observed for other diseases of childhood. The nature of the income differential was the same in cities of each population class, and figures for the intermediate and small surveyed cities are, therefore, not shown here.

SUMMARY

In a canvass of 83 representative urban communities conducted by the United States Public Health Service in 1935-36, records of medical and nursing care received in a 12-month period were obtained for 518,767 white children under 15 years of age. The medical and nursing services relate only to illnesses which had prevented the usual activities of the preschool child, or school attendance of the school child, for at least 7 consecutive days in the 12-month survey period. Certain facts established by an analysis of the survey records from this standpoint may be summarized as follows:

In general, a smaller proportion of the disabling illnesses of children than of adults received care from a physician in the home, clinic, or physician's office, but the age variation in the proportion of illnesses so attended was not marked except in cities under 25,000 population.

The average number of consultations with a physician per patient was lowest among children. Cases of the acute communicable and minor respiratory diseases accounted for almost three-fourths of the child patients attended by a physician outside the hospital, and for about one-half of the physicians' services to children; these diseases, on the average, do not require intensive medical supervision.

Among both children and adults, the proportion of disabling illnesses receiving bedside nursing care was relatively low compared with cases receiving care from a physician. The proportion of illnesses attended by a visiting nurse was highest in childhood, and decreased with age; private duty nursing care showed a reversal of this relation. Disabling illnesses due to the communicable and minor respiratory diseases accounted for the majority of child patients receiving bedside nursing care.

In the cities of 100,000 population and over, 1 in 24 children under 15 years of age had been a hospital patient in the survey year; in the small cities under 25,000 population, the ratio was 1 in 38. Over half of the hospital patients among children were surgical cases; diseases of the tonsils and adenoids alone accounted for about two-fifths of

the child patients. In the large cities, the frequency of hospitalized cases of the acute communicable diseases was relatively high; hospital care of these cases was infrequent in the cities under 25,000 population.

Among children in families on relief, and in self-sustaining families up to the \$2,000 income level, the proportion of disabling illnesses receiving care from a physician outside the hospital was notably lower than in families with an income of \$3,000 and over. This relation was observed consistently in the large, medium-sized, and small surveyed cities.

The nature of the association between family income and the receipt of hospital care by children showed variation with the size of the surveyed cities. In the small cities, the proportion of the illnesses of children receiving hospital medical care increased progressively as family income increased; in the large cities, this association was reversed. It was found that varying practice in large and small cities in the hospitalization of medical, as distinguished from surgical, cases among children largely accounted for this difference.

In each income class, the illnesses of children showing the highest proportion of cases without medical care were those due to the communicable and minor respiratory diseases, exclusive of tonsillitis; but the proportion of illnesses due to these diseases which received medical care increased with increasing family income.

The illnesses of children attended by a physician outside the hospital received more intensive care in high than in low income families for all of the diseases of childhood. The average number of hospital days per child patient, however, was consistently higher among low income families.

ACCURACY OF FOREIGN DERATIZATION EXEMPTION CERTIFICATES

For many years it has been a practice at the larger quarantine stations to make rat-infestation inspections on ships presenting recently dated deratization and deratization exemption certificates. From time to time it was reported that certain ships from foreign ports so inspected exhibited relatively heavy rat infestations at variance with statements on the certificates. To determine whether such instances were of sufficiently frequent occurrence to be a matter of concern, the Surgeon General directed that a study be instituted. This has been accomplished by carrying out, during the past 2 years at a number of stations, careful inspections of ships presenting deratization and deratization exemption certificates issued at a foreign port within 60 days of the date of arrival. In each instance copies of the certificate and of the inspection report were forwarded to the New

York Quarantine Station, where the aggregate results were compiled and tabulated.

This study has shown that:

1. Very few ships deratized (by fumigation) in foreign countries have exhibited a significant rat infestation; specifically, only 14 of 623 such ships showed infestations exceeding 10 rats.

2. Very few ships issued deratization exemption certificates in foreign countries have exhibited significant rat infestation; specifically, only 21 of 1,105 such ships showed infestations exceeding 10 rats.

No particular variations were noted in regard to ships from different countries. The essential data, tabulated as to the total vessels involved, are shown in table 1.

TABLE 1.—*Estimated number of rats on ships presenting deratization and deratization exemption certificates issued in foreign ports*

	All ships in class	Number of ships on which the following numbers of rats were estimated at the United States port of arrival—			
		None	1 to 5	6 to 10	11 or more
Ships presenting deratization certificates.....	623	500	90	19	14
Ships presenting deratization exemption certificates..	1,105	990	86	8	21

It seems reasonable to believe that this is a clear indication of the uniformity of development in quarantine procedure all over the world as well as of the successful control of ship rats.

PROVISIONAL MORTALITY RATES FOR THE FIRST 9 MONTHS OF 1939

The mortality rates in this report are based upon preliminary data for 44 States, the District of Columbia, Alaska, and Hawaii for the first 9 months of 1939. The only States for which data are not available are Arizona, Arkansas, Mississippi, and New Hampshire. Comparative data for 43 States and the District of Columbia are presented for the first 9 months and by the three quarters of 1937-39.

This report is made possible through a cooperative arrangement with the respective States, which voluntarily furnish provisional quarterly and annual tabulations of current birth and death records. These reports are compiled and published by the United States Public Health Service.

Because of lack of uniformity in the method of classifying deaths according to cause, and because a certain number of certificates were not filed in time to be included, these data may differ in some instances from the final figures subsequently published by the Bureau of the Census.

In the past, these preliminary reports have provided an early and accurate index of the trend in mortality for the country as a whole. Some deviation from the final figures for individual States is to be expected, because of the provisional nature of the information. It is believed, however, that the trend of mortality within each State is correctly represented. Comparisons of specific causes of death among different States are subject to error because of differences in tabulation procedure and completeness of reporting. Comparisons of

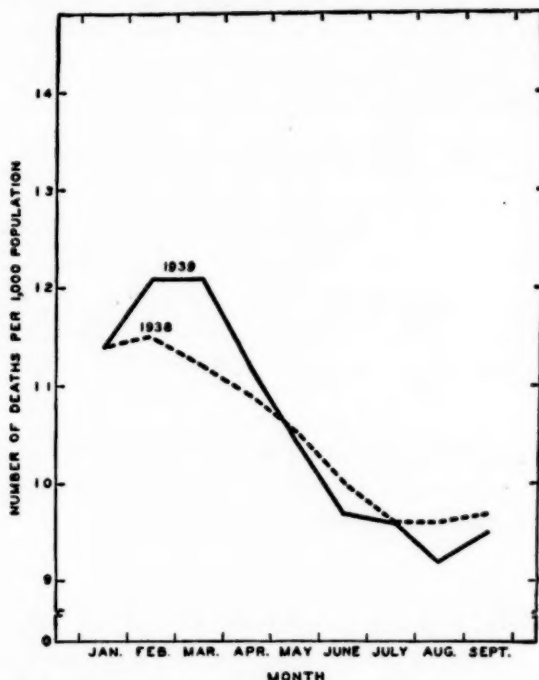


FIGURE 1.—Death rate per 1,000 population, by months, 1938 and 1939.

this nature should be made only from the final figures published by the Bureau of the Census.

The death rate from all causes, 10.6 per 1,000 population, although slightly higher than the corresponding rate for 1938, 10.5 per 1,000 population, was 5 percent less than the rate for 1937. When it is recalled that the mortality rate for 1938 was the lowest on record, the experience during the first 9 months of 1939 is very favorable. Moreover, since the minor outbreak of influenza during the first quarter, the death rate this year has been even lower than that for 1938.

The principal diseases responsible for the slight increase in mortality as compared with last year are influenza, cancer, diabetes, cerebral hemorrhage, and heart disease. With the exception of influenza, these diseases have been increasing for a number of years, owing, in part at least, to the increasing proportions of the population

in the older age groups. In addition to these 5 causes, poliomyelitis was also slightly more prevalent this year than in 1938.

Each of the remaining diseases for which data are presented in the following table caused relatively fewer deaths during the first three quarters of 1939 than during the corresponding period in 1938. Especially gratifying is the decline in infant and maternal mortality, the former declining 9.4 percent and the latter declining 9.5 percent during the 9-month period.

Tuberculosis continued its steady decline and reached a low death rate of 45.7 per 100,000 population, about 4 percent less than the low rate of 1938. The first 9 months of 1939 were unusually free from outbreaks of the principal diseases of early childhood, measles, scarlet fever, whooping cough, and diphtheria. The mortality rate from these 4 diseases was 45 percent less than during the corresponding period of 1938.

For the second consecutive year the mortality rate from automobile accidents has declined; the decrease during this 9-month period, 2.7 percent, while less than the corresponding decrease during the first 9 months of 1938, 19.6 percent, is still noteworthy.

The birth rate, which rose slightly during 1938, decreased slightly during the first 3 quarters of 1939, but is still about 2 percent above the rate for 1937. The crude rate of natural increase, 6.2 per 1,000 population, was 6 percent lower than during the first 9 months of 1938.

Provisional mortality from certain causes in the first 9 months of 1939, with comparative provisional data for the corresponding period in preceding years

State and period	Rate per 1,000 live births		Births (exclusive of still-births) per 1,000 population (annual basis)	Death rate per 100,000 population (annual basis)												All causes, rate per 1,000 population (annual basis)									
	Total infant mortality	Maternal mortality		Typhoid fever (1, 2)	Measles (7)	Scarlet fever (8)	Whooping cough (9)	Diphtheria (10)	Influenza (11)	Acute poliomyelitis and poliomyelitis (16)	Encephalitis, epidemic or lethargic (17)	Epidemic cerebro-spinal meningitis (18)	Tuberculosis, all forms (23-32)	Cancer, all forms (43-53)	Diabetes (59)		Cerebral hemorrhage, apoplexy (82a, b)	Diseases of the heart (90-95)	Pneumonia, all forms (107-109)	Diseases of the digestive system (115-129)	Diarrhea and enteritis under 2 years (119)	Nephritis (130-132)	All accidents (176-195, 201-214)	Automobile accidents (206, 208, 210)	
44 STATES ¹																									
January-September:																									
1939	46	3.8	16.8	1.3	1.0	0.7	2.2	1.1	17.2	0.5	0.5	45.7	118.1	25.7	86.5	282.2	60.7	59.8	8	7.1	74.9	68.4	21.5		
1938	49	4.2	17.4	1.7	3.0	1.0	3.6	1.4	11.3	0.4	0.8	47.7	116.0	23.9	83.4	266.0	63.4	63.7	9.9	9.7	76.7	69.0	22.1		
1937	54	4.8	16.5	1.9	9.9	1.5	3.7	1.5	32.4	1.0	1.8	52.6	112.5	24.1	84.8	265.4	66.0	66.0	9.7	9.7	79.3	78.7	27.5		
January-March:																									
1939	54	4.1	16.3	1.8	1.4	1.2	2.4	1.6	32.1	2	5	46.9	119.0	29.7	96.5	323.4	104.1	55.7	4.1	4.1	84.6	64.1	19.4		
1938	52	4.4	16.6	1.8	4.0	1.7	3.4	1.9	21.6	3	6	48.7	113.3	26.5	90.3	292.9	103.4	55.9	4.2	4.2	83.0	64.8	20.8		
1937	64	5.6	13.6	1.9	8.8	2.5	3.3	2.1	74.1	3	7	53.9	112.0	28.7	95.3	309.0	149.4	59.8	4.5	4.5	87.8	73.3	25.6		
April-June:																									
1939	45	3.9	16.4	1.8	1.3	0.7	2.3	1.8	16.4	3	4	48.0	117.9	25.5	86.2	280.9	51.7	57.9	5.9	5.9	75.1	67.0	20.2		
1938	40	4.3	16.8	1.1	4.4	1.0	4.1	1.0	8.6	3	6	48.8	116.4	23.8	83.8	263.2	60.0	64.7	10.0	10.0	78.6	65.1	20.3		
1937	51	4.8	16.3	1.1	1.3	1.7	3.3	1.1	19.4	3	6	54.2	112.3	23.0	84.1	263.2	75.8	64.1	7.7	7.7	81.2	76.1	25.8		
July-September:																									
1939	35	3.5	17.7	2.3	3	1.9	1.9	1.2	3.3	1.0	5	42.2	117.3	22.1	77.1	242.7	27.2	65.5	11.2	11.2	64.5	74.0	24.8		
1938	40	4.6	18.0	2.5	8	2.4	1.2	3.9	4	2	7	44.7	116.1	21.4	76.1	237.6	33.6	70.2	15.4	15.4	68.7	76.9	25.3		
1937	47	4.2	17.0	3.2	5	4.7	1.2	4.3	4.3	2.3	8	47.9	113.1	20.7	75.1	227.8	35.3	73.9	16.8	16.8	69.1	86.4	31.0		
Metropolitan Life Insurance Co., Industrial policyholders (January-September): ²																									
1939				7	7	8	1.8	1.1	11.1			46.0	100.5	28.0	90.2	162.4	46.7		55.5	52.1	46.3	16.1			
1938				1.0	2.0	1.2	2.2	1.4	7.4			47.6	95.5	24.4	87.6	151.9	53.1		47.3	53.1	48.3	16.9			
1937				1.9	1.2	1.7	3.3	1.5	21.0			53.0	93.4	25.3	89.0	153.8	71.4		49.0	55.1	54.0	20.2			
Alabama:																									
1939				2.0	2.5	0.5	6.1	1.9	35.0	0.5	0.4	53.5	57.2	11.5	68.3	162.0	67.7	58.5	14.9	66.3	63.8	19.5			
1938				2.3	7.6	0.6	6.8	2.9	25.3	0.6	0.6	55.4	55.2	11.5	68.4	162.7	73.5	70.8	21.0	77.1	64.6	18.4			
1937				2.3	3	0.3	7.3	2.2	57.2	0.6	0.5	62.4	57.5	9.8	64.2	159.6	87.9	66.3	17.7	70.5	69.0	21.3			

Alaska:	1939	22.5	99	3.7	(9)	4.1	12.3	32.9	2.1	23.7	(9)	2.1	(9)	2.1	2.2	390.5	84.3	4.1	65.8	238.6	148.1	45.3	(9)	32.9	160.4	(9)	2.2
1938	22.5	30.0	87	7.7	2.1	4.2	13.6	4.2	53.0	2.1	(9)	2.1	(9)	2.1	2.2	507.2	78.5	157.0	275.9	253.8	44.6	(9)	12.7	214.3	(9)	2.2	
1937	18.7	21.6	136	12.4	2.2	4.4	2.2	37.9	(9)	49.0	4.4	2.2	17.8	385.5	57.9	66.8	11.1	24.5	185.0	160.4	45.3	(9)	32.9	160.4	(9)	2.2	
California:	1939	12.2	16.5	40	3.2	9	1.3	5	8	1.9	3.6	1.2	4	5	63.3	152.6	25.4	92.1	360.4	49.8	78.3	7.5	76.1	94.2	42.3	48.1	
1938	12.0	16.3	43	3.6	1.1	1.2	4	2.5	1.4	4.2	3	7	9	67.0	147.3	24.0	87.9	343.2	56.0	75.8	8.2	78.5	94.2	42.3	48.1		
1937	13.2	15.1	54	4.4	1.0	7	8	5.2	1.6	25.5	1.3	8	1	75.4	138.4	20.4	85.3	398.0	86.7	84.3	11.6	84.1	105.5	48.1	48.1		
Colorado:	1939	11.6	19.1	55	5.2	20	1.6	1.1	5.8	3.1	22.4	9	5	57.9	120.3	17.6	91.3	246.0	89.2	67.7	10.3	78.9	90.1	26.4	35.5		
1938	11.5	18.9	53	4.6	1.7	1.0	4.0	3.4	13.7	1.6	13.7	6	1.9	63.6	116.0	17.7	89.8	232.3	94.8	72.1	13.2	84.1	92.9	30.8	35.5		
1937	13.4	18.7	71	5.8	2.2	4	3.5	2.5	61.0	4.4	1.2	3.7	68.0	110.3	16.0	86.1	212.2	184.4	84.0	23.2	80.0	23.2	80.0	97.4	35.5		
Connecticut:	1939	9.7	12.5	37	3.2	4	6	2	1.2	4	5.7	1	2	34.6	136.1	28.2	81.2	273.7	45.7	46.7	2.1	75.3	56.4	16.0	16.0		
1938	10.0	13.5	36	2.8	5	(9)	3	5	7	4.1	(9)	1	2	34.9	139.1	28.3	85.8	265.6	52.4	49.2	3.2	78.0	70.7	17.6	17.6		
1937	10.2	12.9	41	3.3	2	8	8	1.4	1.1	13.9	4	4	8	38.1	123.1	31.5	84.8	231.3	69.8	47.3	3.3	79.2	69.3	22.3	22.3		
Delaware:	1939	12.2	16.5	46	4.6	20	(9)	5	3.1	1.0	12.7	(9)	1.5	2.0	61.0	116.4	34.1	112.9	370.4	74.7	54.9	6.1	111.8	75.2	33.6	39.4	
1938	12.2	15.7	53	9.7	5	1.0	5	6	6	1.0	11.7	(9)	1.5	2.0	61.0	116.4	34.1	112.9	370.4	74.7	54.9	6.1	111.8	75.2	33.6	39.4	
1937	13.7	15.9	69	9.2	2	6	1.5	(9)	8.2	5	28.1	5	5	59.9	114.7	27.1	104.5	332.9	104.0	80.4	9.2	137.8	110.6	39.4	39.4		
District of Columbia:	1939	12.8	21.8	47	5.1	2	4	(9)	2.1	6	10.8	(9)	2	8	69.9	157.8	26.4	82.6	335.8	74.4	81.7	11.9	106.5	75.9	22.0	26.4	
1938	12.5	20.1	49	5.2	8	4	6	6	8	5	5.0	4	2	6	1.7	140.4	23.3	83.6	353.3	89.3	70.2	12.2	101.7	67.2	26.6	26.6	
1937	14.2	19.7	63	6.0	1	5	2.8	6	3.4	2.1	19.4	6	8	5.5	92.5	142.9	27.5	98.7	338.6	130.5	78.0	11.9	93.8	81.0	26.6	26.6	
Florida:	1939	12.0	17.4	59	6.6	1	6	9	2	3	25.3	4	2	6	53.1	98.0	21.1	100.0	255.1	57.1	83.7	12.7	98.5	97.1	37.5	37.5	
1938	12.2	17.1	59	7.7	3	1.9	2	4.2	1.9	21.9	7	7	6	1.0	57.2	92.3	19.2	93.3	291.1	68.8	89.0	13.8	93.8	98.4	39.3	39.3	
1937	12.2	16.4	61	6.5	8	5	2	1	3	2.5	38.9	2	4	4	58.9	92.3	17.9	103.1	231.9	65.2	88.4	11.8	99.5	103.3	39.6	39.6	
Georgia:	1939	9.6	19.3	61	5.8	2	2	1	4	2	29.4	4	1	4	46.6	59.6	11.3	80.8	161.9	67.5	58.8	14.7	89.5	53.4	18.4	18.4	
1938	10.5	19.8	70	6.6	4	6	1	3	7	2	24.3	6	2	8	51.4	59.9	12.6	84.1	163.8	81.8	73.4	24.2	110.7	63.8	27.5	27.5	
1937	10.5	19.4	63	7.2	4	2	3	4	8	2	48.3	6	2	1	50.1	55.1	11.4	80.5	162.1	85.6	69.1	17.3	103.9	72.6	27.8	27.8	
Hawaii:	1939	6.9	18.9	58	3.2	1	1	(9)	7	2	3	8	4	6	60.7	62.1	14.6	43.8	117.4	52.1	48.4	10.3	61.0	43.2	12.6	12.6	
1938	7.2	19.8	57	3.8	1	3	3	4	7	1	6	1	6	6	58.1	62.8	15.2	51.4	117.1	61.5	50.2	11.7	54.0	53.4	15.5	15.5	
1937	8.3	20.1	70	4.9	1	5	2	(9)	1	2	8	3	(9)	6	70.7	69.2	16.1	40.6	111.9	94.6	59.7	17.3	63.0	48.6	15.8	15.8	
Idaho:	1939	9.4	22.9	45	2.6	3	1	1	2	4	15.9	5	1	1	19.3	91.3	21.7	63.5	246.5	60.6	55.6	4.5	51.1	97.7	31.5	31.5	
1938	9.0	22.2	43	3	1	3	1	8	3	5	10.8	3	1	1	20.3	83.9	10.7	64.7	184.5	71.6	57.0	3.7	56.0	87.2	32.4	32.4	
1937	9.8	21.6	43	3	1	3	1	2	3	1	20.8	3	1	1	20.3	83.9	11.9	69.4	184.5	71.6	57.0	3.7	56.0	87.2	32.4	32.4	
Illinois:	1939	11.0	14.7	39	3.1	1	1	0	2	2	15.6	3	3	2	47.4	140.0	29.5	73.9	336.3	56.4	61.5	3.2	93.9	66.2	24.3	24.3	
1938	10.6	15.2	41	3	1	3	1	1	4	5	11.5	2	4	3	46.3	134.8	27.4	72.1	307.1	55.5	64.9	6.2	91.3	71.7	24.0	24.0	
1937	11.2	14.2	45	4	1	8	2	2	3	2	20.8	1	2	4	4	126.7	27.4	69.8	294.2	71.6	71.6	4.8	95.3	78.3	30.7	30.7	
Indiana:	1939	11.0	15.4	42	4	1	2	2	1	5	30.3	2	5	4	41.0	110.9	16.3	128.5	244.3	72.2	(9)	5.7	61.6	70.4	26.8	26.8	
1938	10.5	15.9	43	4	1	4	1	1	6	1	11.5	3	6	7	39.4	110.6	15.9	117.4	229.6	64.9	(9)	5.7	61.6	70.4	26.8	26.8	
1937	11.3	14.8	53	3	1	3	4	3	1	1	38.1	1	0	8	4	108.0	14.8	118.2	242.7	92.4	(9)	5.7	61.6	70.4	26.8	26.8	
Iowa:	1939	9.9	16.9	37	2.4	7	1	4	1	0	18	5	6	5	18.6	121.2	25.1	101.7	265.3	53.5	56.1	2.3	93.9	64.7	18.5	18.5	
1938	9.3	16.3	37	2	3	2	1	2	8	3	12.0	5	1	0	19.1	123.2	23.0	98.4	216.1	56.5	56.4	3.6	93.9	64.7	18.5	18.5	
1937	9.8	15.7	43	4	1	4	2	3	3	3	32.0	1	6	7	21.0	124.2	20.8	101.6	216.1	56.5	56.4	3.6	93.9	64.7	18.5	18.5	
South Carolina:	1939	12.2	16.5	40	3.2	9	1.3	5	8	1.9	3.6	1.2	4	5	63.3	152.6	25.4	92.1	360.4	49.8	78.3	7.5	76.1	94.2	42.3	48.1	
1938	12.0	16.3	43	3.6	1.1	1.2	4	2.5	1.4	4.2	3	7	9	67.0	147.3	24.0	87.9	343.2	56.0	75.8	8.2	78.5	94.2	42.3	48.1		
1937	13.2	15.1	54	4.4	1.0	7	8	5.2	1.6	25.5	1.3	8	1	75.4	138.4	20.4	85.3	398.0	86.7	84.3	11.6	84.1	105.5	48.1	48.1		
South Dakota:	1939	11.6	19.1	55	5.2	20	1.6	1.1	5.8	3.1	22.4	9	5	57.9	120.3	17.6	91.3	246.0	89.2	67.7	10.3	78.9	90.1	26.4	35.5		
1938	11.5	18.9	53	4.6	1.7	1.0	4.0	3.4	13.7	1.6	13.7	6	1.9	63.6	116.0	17.7	89.8	232.3	94.8	72.1	13.2	84.1	92.9	30.8	30.8		
1937	13.4	18.7	71	5.8	2.2	4	3.5	2.5	61.0	4.4	1.2	3.7	68.0	110.3	16.0	86.1	212.2	184.4	84.0	23.2	80.0	23.2	80.0	97.4	35.5		
Tennessee:	1939	9.7	12.5	37	3.2	4	6	2	1.2	4	5.7	1	2	1	34.6	136.1	28.2	81.2	273.7	45.7	46.7	2.1	75.3	56.4	16.0	16.0	
1938	10.0	13.5	36	2.8	5	(9)	3	5	7	4.1	(9)	1	2	2	34.9	139.1	28.3	85.8	265.6	52.4	49.2	3.2	78.0	70.7	17.6	17.6	
1937	10.2	12.9	41	3.3	2	8	8	1.4	1.1	13.9	4	4	8	38.1	123.1	31.5	84.8	231.3	69.8	47.3	3.3	79.2	69.3	22.3	22.3		
Texas:	1939	12.2	16.5	46	4.6	20	(9)	5	3.1	1.0	12.7	(9)	1.5	2.0	61.0	116.4	34.1	112.9	370.4	74.7	54.9	6.1	111.8	75.2	33.6	39.4	
1938	12.2	15.7	53	9.7	5	1.0	5	6	6	1.0	11.7	(9)	1.5	2.0	61.0	116.4	34.1	112.9	370.4	74.7	54.9	6.1	111.8	75.2	33.6	39.4	
1937	13.7	15.9	69	9.2	2	6	1.5	(9)	8.2	5	28.1	5	5	59.9	114.7	27.1	104.5	332.9	104.0	80.4	9.2	137.8	110.6	39.4	39.4		
Vermont:	1939	12.8	21.8	47	5.1	2	4	(9)	2.1	6	10.8	(9)	2	8	69.9	157.8	26.4	82.6	335.8	74.4	81.7	11.9	106.5	75.9	22.0	26.4	
1938	12.5	20.1	49	5.2	8	4	6	6	8	5	5.0	4	2	6	1.7	140.4	23.3	83.6	353.3	89.3	70.2	12.2	101.7	67.2	26.6	26.6	
1937	14.2	19.7	63	6.0	1	5	2.8	6	3.4	2.1	19.4	6	8	5.5	92.5	142.9	27.5	98.7	338.6	130.5	78.0	11.9	93.8	81.0	26.6	26.6	
Virginia:	1939	12.0	17.4	59	6.6	1	6	9	2	3	25.3	4	2	6	53.1	98.0	21.1	100.0	255.1	57.1	83.7	12.7	98.5	97.1	37.5	37.5	
1938	12.2	17.1	59	7.7	3	1.9	2	4	2	1.9	21.9	7	7	6	1.0	57.2	19.2	93.3	291.1	68.8	89.0	13.8	93.8	98.4	39.3	39.3	
1937	12.2	16.4																									

See footnotes at end of table.

Provisional mortality from certain causes in the first 9 months of 1939, with comparative provisional data for the corresponding period in preceding years—Continued

State and period	All causes, rate per 1,000 population (annual basis)	Births (exclusive of still-births) per 1,000 population (annual basis)	Rate per 1,000 live births		Typhoid fever (1, 2)	Measles (7)	Scarlet fever (8)	Whooping cough (9)	Diphtheria (10)	Influenza (11)	Acute poliomyelitis and polioencephalitis (12)	Encephalitis, epidemic or lethargic (17)	Epidemic cerebrospinal meningitis (18)	Tuberculosis, all forms (23-32)	Cancer, all forms (45-53)	Diabetes (59)	Cerebral hemorrhage, apoplexy (82a, b)	Diseases of the digestive system (115-129)	Diarrhea and enteritis under 2 years (119)	Nephritis (130-132)	All accidents (176-195, 201-214)	Automobile accidents (206, 208, 210)
			Total infant mortality	Maternal mortality																		
Kansas:																						
1939	9.9	15.2	40	4.0	0.6	0.1	0.7	0.6	0.4	18.6	0.2	1.4	0.4	22.2	110.1	26.0	94.1	247.6	44.4	59.5	98.9	20.8
1938	9.9	15.7	42	4.1	0.9	1.7	1.5	3.1	0.5	15.7	0.2	1.0	0.4	23.5	120.4	23.7	96.0	228.8	48.5	62.2	101.2	22.8
1937	10.4	15.2	46	4.4	0.7	1.1	4.3	2.7	1.4	40.6	2.0	1.4	1.4	27.5	114.8	22.9	97.8	230.9	64.1	64.1	113.2	24.8
Kentucky:																						
1939	9.3	19.5	49	4.2	3.8	1.3	0.9	1.7	2.1	34.8	0.6	0.7	1.2	61.4	72.9	11.7	92.1	195.5	64.4	62.4	67.3	19.2
1938	9.1	22.2	51	4.0	3.8	4.7	1.3	7.3	2.4	21.8	0.9	0.2	2.2	66.6	67.7	12.6	92.0	176.3	66.2	79.9	101.2	19.7
1937	10.2	20.1	51	4.0	5.3	3.5	1.4	7.8	3.4	57.3	1.2	0.6	2.9	66.6	66.2	10.3	83.1	157.4	89.0	74.5	68.7	24.4
Louisiana:																						
1939	11.3	21.5	62	6.1	7.2	5.8	2.2	5.3	2.4	27.0	0.5	0.4	1.1	65.7	82.7	17.5	74.0	229.5	88.0	74.8	65.6	19.0
1938	11.3	21.7	66	6.4	5.9	7.7	3.4	2.6	24.8	0.4	0.5	0.5	1.1	68.5	87.2	17.5	66.5	210.4	90.2	78.2	68.8	20.0
1937	11.6	20.1	68	8.0	6.5	1.1	7.7	7.5	2.8	62.0	0.8	0.4	1.4	72.0	79.6	16.6	67.2	203.1	101.5	75.4	68.7	20.8
Maine:																						
1939	12.6	17.5	52	4.0	1.2	0.6	0.3	3.3	2.5	22.1	0.9	0.5	0.2	33.3	147.2	25.7	126.2	373.7	77.1	52.5	70.4	20.5
1938	11.9	17.8	49	4.3	1.9	2.0	0.9	2.3	0.6	16.0	0.6	0.2	0.8	29.8	154.4	27.3	112.7	332.5	73.1	57.8	63.0	18.8
1937	13.4	18.5	60	5.1	1.6	0.3	0.5	2.8	0.5	45.3	2.0	0.2	0.8	31.9	149.2	23.0	123.7	366.3	98.9	58.6	67.5	13.9
Maryland:																						
1939	12.3	16.9	49	3.2	1.1	1.3	0.2	1.2	1.0	11.0	0.1	0.5	0.7	78.5	141.0	29.8	100.5	333.0	74.7	57.1	74.0	22.4
1938	12.3	17.4	57	3.8	1.7	0.6	0.6	3.3	0.7	8.1	0.1	1.1	3.2	79.1	134.8	29.0	117.6	319.6	81.1	63.0	72.3	21.4
1937	13.3	16.6	63	4.1	1.9	2.9	0.8	6.3	1.4	19.0	1.3	1.6	3.2	96.0	132.2	27.2	110.6	308.5	111.9	72.2	92.4	29.7
Massachusetts:																						
1939	10.4	10.4	---	---	3	0.5	0.4	1.2	0.2	6.7	0.9	0.2	0.5	33.9	143.6	32.4	92.5	366.8	68.4	49.8	53.9	11.7
1938	10.4	10.4	---	---	3	0.7	0.9	0.3	0.3	3.7	0.3	0.2	0.6	37.9	154.8	32.2	96.1	359.0	74.6	54.0	59.1	13.8
1937	11.6	11.6	---	---	2	0.8	1.0	2.3	0.3	11.5	0.6	0.3	1.8	41.3	148.2	34.3	95.2	361.2	101.8	62.6	64.2	17.3
Michigan:																						
1939	10.7	19.2	42	3.1	0.6	0.8	1.7	0.6	0.6	19.3	0.8	0.2	0.4	39.3	123.0	27.7	87.6	303.6	59.7	60.7	74.9	25.2
1938	10.3	19.8	44	3.6	0.6	0.6	1.9	2.6	0.8	6.3	0.2	0.2	0.4	40.3	112.6	25.8	88.2	278.1	56.4	62.3	70.9	23.7
1937	11.2	18.6	50	3.7	0.7	0.2	3.4	2.9	1.2	21.6	1.2	0.3	1.0	45.5	114.1	23.6	86.7	271.6	86.4	67.0	91.0	38.5

Minnesota:	9.9	18.4	37	27.7	1	3.2	5	5	4	14.8	1.4	4	2	31.5	139.9	26.6	94.3	260.6	62.2	57.6	3.7	40.0	69.3	19.2
	9.5	17.9	38	28.2	4	3.6	1.2	2.2	4	8.4	4	8	4	29.1	140.3	24.8	85.1	236.5	63.0	54.3	3.0	42.1	69.9	23.2
	10.1	18.0	42	30.0	3	3.9	1.7	2.5	4	29.8	1.6	1	1	35.0	139.2	23.3	86.5	228.3	71.1	56.4	2.8	44.9	74.0	22.0
Missouri:	11.0	15.9	44	35.5	2	2	1.8	1.6	22.9	5	4	5	45.5	125.1	24.0	89.0	293.9	81.0	63.7	8.3	107.7	68.7	19.4	
	11.0	13.6	46	37.5	6.5	2.2	4.7	2.3	16.7	5	6	5	50.0	124.3	22.5	87.2	289.0	89.4	63.6	10.6	104.0	66.7	22.1	
	11.9	13.8	61	35.8	3.6	2.9	4.4	1.9	43.5	1.4	1.0	1.3	57.6	120.9	22.9	92.7	262.7	123.6	63.0	10.5	102.5	80.5	26.2	
Montana:	10.8	19.7	52	34.4	2.4	3.9	1.0	3.6	1.2	21.9	(*)	1.2	1.2	43.5	117.9	19.4	91.2	290.0	98.8	67.8	4.9	56.6	96.5	26.3
	10.4	19.6	42	35.6	7	1.5	2.0	8.8	2.0	21.1	2	5.6	2.0	44.4	97.1	16.9	87.8	282.7	76.5	67.5	6.1	51.5	103.3	23.8
	11.6	19.2	50	33.9	2.7	3.5	2.5	2.7	2.0	68.0	1.2	1.7	43.9	105.9	20.1	92.3	209.4	110.9	70.9	5.0	65.2	109.1	30.5	
Nebraska:	9.0	16.0	34	34.4	5	1.4	1.0	1.3	9	18.9	4	4	2	16.6	112.2	24.2	88.0	199.3	54.3	55.2	2.2	65.5	69.8	20.3
	8.7	16.0	37	33.3	5	3	2.6	9	11.0	4	8	5	16.8	120.2	24.5	82.9	210.7	52.7	50.2	2.5	60.0	57.1	17.2	
	9.7	16.0	43	4.2	5	3.4	2.0	1.0	52.9	3.9	1.0	1.3	20	111.2	26.8	86.4	216.8	62.5	63.2	4.2	64.4	66.4	23.0	
Nevada:	11.7	18.0	43	51.1	1.3	2.6	(*)	(*)	6.5	(*)	(*)	(*)	1.3	53.2	107.7	10.4	75.3	280.4	92.2	40.2	(*)	44.1	206.4	72.7
	11.9	17.7	36	22.3	3.9	(*)	1.3	3.9	1.3	6	6	(*)	70.8	94.4	13.1	74.7	276.6	100.9	62.9	5.2	40	135.0	57.7	
	12.0	12.0	49	8.8	(*)	2.6	2.6	(*)	11.9	(*)	(*)	(*)	74.1	71.5	11.9	82.1	242.2	127.1	58.2	4.0	80.6	166.8	56.9	
New Jersey:	10.0	13.1	39	30.0	4	3	(*)	5	1.2	4	6.4	7	4	42.8	131.1	31.8	81.0	334.9	47.2	53.7	2.7	65.0	54.1	17.4
	9.9	13.0	39	34.0	4	3	3	1.1	7	4.8	2	7	5	45.6	125.6	28.5	79.4	315.9	56.7	57.1	3.0	69.4	58.1	19.5
	10.2	12.6	40	33.7	1	1.6	4	1.2	5	11.8	5	5	1.2	48.0	121.2	31.1	76.1	307.5	69.9	57.5	3.0	71.8	72.9	24.8
New Mexico:	13.6	36.9	98	4.3	3.5	1.3	6	8.8	4.4	29.8	1.6	(*)	1.6	87.9	66.3	9.7	47.4	131.8	107.7	104.2	44.3	59.6	101.4	44.3
	13.1	35.5	93	4.9	3.8	13.8	1.0	17.4	3.2	14.2	1.0	(*)	6	91.6	65.5	7.3	50.7	134.5	85.5	114.0	48.5	64.3	93.8	43.6
New York:	11.4	14.5	39	30.0	4	5	4	1.0	3	4.8	4	5	5	49.6	154.6	40.3	67.1	369.2	60.1	61.5	4.5	68.5	61.5	16.2
	11.3	14.7	41	38.4	4	8	6	1.5	3	3.7	2	7	8	51.9	153.9	36.4	64.5	360.2	65.8	62.7	5.2	72.1	64.5	17.5
	12.0	14.6	40	40	5	6	8	1.3	7	11.9	4	7	1.3	59.7	149.8	37.5	73.9	382.2	93.3	69.1	6.3	76.8	72.3	21.7
North Carolina:	8.8	22.2	59	52	1.4	2.1	4	7.3	2.6	19.3	2	2	5	50.8	54.5	12.9	79.4	157.0	90.5	64.6	20.0	80.6	61.1	23.4
	9.6	22.6	68	6.1	2.2	9.0	5	8.3	3.6	13.9	3	4	9	55.0	54.4	10.5	77.7	161.0	76.0	79.7	32.9	89.6	60.9	22.5
	9.7	22.9	63	5.4	2	6	1.3	4	2.8	29.4	5	5	1.1	55.7	52.8	10.4	78.4	156.6	83.6	72.7	25.6	83.7	69.8	27.3
North Dakota:	7.1	18.9	45	27	8	3.8	9	1.9	8	19.6	(*)	8	6	19.4	78.1	19.0	64.2	174.4	50.7	44.4	5.6	35.4	39.5	10.7
	7.3	18.8	47	25	2	2.8	9	9.2	8	9.8	(*)	4.7	1.5	21.3	89.9	20.4	60.4	143.7	50.4	51.0	6.0	40	48.3	15.9
	8.0	18.7	53	4.6	2	(*)	1.3	9	8	34.5	(*)	8	2.3	26.1	78.0	17.2	71.0	163.6	93.7	54.2	10.0	33.7	57.6	16.5
Ohio:	11.4	15.7	42	38.8	7	1	1.2	1.3	8	22.1	2	6	2	44.1	133.7	28.9	109.8	301.1	63.2	57.4	5.3	78.1	82.3	25.3
	11.0	16.8	44	33.9	8	3.5	1.3	2.1	11.4	2	4	7	48.3	129.2	27.1	103.7	274.9	61.0	60.6	7.1	75.3	72.7	25.5	
	12.0	15.6	51	4.9	1.6	1.7	1.9	5.0	1.2	34.9	1.0	1.0	1.6	52.2	119.2	20.5	108.3	282.3	86.1	70.0	9.0	79.3	96.9	36.8
Oklahoma:	8.2	16.9	55	4.4	3.7	3.9	8	1.1	2.3	21.5	4	6	4	42.3	71.0	12.6	70.0	140.7	59.4	58.7	9.2	52.7	79.4	19.3
	7.9	16.5	42	4.2	4	2.6	7	8.7	4.0	16.5	1.1	3	1.0	45.4	69.9	12.8	64.3	137.8	56.6	58.1	9.6	58.2	66.2	20.7
	8.7	17.2	59	8.0	4.9	1.3	1.3	2.7	2.5	48.9	2.4	3	2.3	51.8	72.0	12.5	61.0	130.1	76.7	64.9	11.5	63.6	62.8	24.1
Oregon:	11.2	16.1	36	23	1	9	6	9	3	8.6	3	8	3	30.6	134.2	24.4	109.7	290.5	44.2	43.7	1.9	117.9	93.3	28.5
	11.3	15.9	36	23.8	4	4	1	2.1	1.0	9.0	4	1	1.0	29.5	136.0	23.2	96.3	272.2	54.6	48.8	1.8	109.4	92.8	29.3
	12.2	15.2	42	3.8	8	1	1.0	2.3	3	37.2	6	9	1.6	35.5	120.4	22.0	105.7	278.5	67.7	1.1	1.2	106.4	91.6	31.0

See footnotes at end of table.

Provisional mortality from certain causes in the first 9 months of 1939, with comparative provisional data for the corresponding period in preceding years—Continued

State and period	Death rate per 100,000 population (annual basis)															Rate per 1,000 live births									
	All causes, rate per 1,000 population (annual basis)	Births (exclusive of still-births) per 1,000 population (annual basis)	Total infant mortality	Maternal mortality	Typhoid fever (1)	Measles (7)	Scarlet fever (8)	Whooping cough (9)	Diphtheria (10)	Influenza (11)	Acute poliomyelitis and poliomyelitis (16)	Encephalitis, epidemic or lethargic (17)	Epidemic cerebro-spinal meningitis (18)	Tuberculosis, all forms (23-32)	Cancer, all forms (45-53)	Diabetes (59)	Cerebral hemorrhage, apoplexy (82a, b)	Diseases of the heart (90-95)	Pneumonia, all forms (107-109)	Diseases of the digestive system (115-129)	Diarrhea and enteritis under 2 years (119)	Nephritis (130-132)	All accidents (176-185, 201-214)	Automobile accidents (206, 208, 210)	
Pennsylvania:																									
1939	10.3	15.9	44	3.3	0.6	0.1	0.5	1.5	0.6	13.5	0.3	0.7	0.6	39.8	119.7	188.8	32.5	79.9	306.8	80.4	51.5	4.5	81.3	50.9	13.7
1938	10.4	16.4	46	3.6	0.9	3.0	1.3	1.7	0.9	10.0	-1	0.7	0.7	41.1	116.7	192.8	29.7	79.2	295.4	59.6	55.9	5.5	79.7	56.6	15.4
1937	11.2	16.0	51	4.2	1.0	0.8	1.6	2.9	0.9	31.1	0.4	0.7	1.4	47.6	116.1	198.0	30.8	78.4	298.0	77.9	56.5	6.2	85.2	62.4	20.3
Rhode Island:																									
1939	11.4	15.2	39	3.2	0.9	0.2	0.5	2.7	0.2	6.7	0.9	0.4	0.4	41.4	158.8	33.7	80.6	370.1	64.9	64.1	4.5	92.6	51.2	10.6	
1938	12.3	15.8	41	2.1	0.4	0.9	0.4	1.4	0.2	8.1	0.2	0.8	1.0	42.2	159.8	41.2	87.2	354.6	88.9	60.7	3.9	109.6	105.0	11.8	
1937	12.4	15.2	48	3.6	0.3	0.6	1.8	2.9	0.4	13.7	0.9	0.4	2.7	47.7	157.6	42.6	97.6	369.5	101.7	59.9	4.5	111.7	83.2	17.9	
South Carolina:																									
1939	9.5	20.0	71	6.1	5.3	0.6	1.1	7.7	2.3	26.8	2.8	0.2	0.4	42.5	60.3	12.6	12.6	178.5	61.6	42.8	7.7	84.0	60.3	23.4	
1938	10.6	20.1	86	8.2	6.4	0.9	0.5	16.2	1.9	30.1	0.6	0.4	0.7	48.4	62.0	11.8	80.7	181.3	82.3	42.8	13.1	87.2	59.7	22.1	
1937	10.3	19.7	84	7.8	7.0	0.9	0.4	4.1	2.5	46.6	0.6	0.3	1.1	49.4	47.6	10.6	86.1	176.2	87.4	42.6	10.0	88.5	76.7	25.6	
South Dakota:																									
1939	8.4	16.6	44	3.4	1.4	5.4	1.4	8.8	2.5	24.7	0.6	0.6	0.8	26.8	93.2	27.0	70.2	137.5	56.7	58.7	6.2	40.5	45.7	16.2	
1938	6.7	16.7	47	3.0	1.4	2.2	1.0	9.9	1.0	12.0	0.4	1.2	0.2	32.3	91.2	19.3	65.5	165.6	52.2	49.8	5.0	40.0	58.5	16.8	
1937	9.1	16.8	53	4.4	0.4	0.9	3.1	1.7	0.6	48.5	0.8	1.0	1.4	37.1	82.1	19.7	72.7	164.8	71.1	54.7	4.2	41.9	62.4	15.3	
Tennessee:																									
1939	9.4	16.6	55	5.5	2.9	1.5	0.6	3.2	1.6	35.7	0.6	0.7	0.6	77.9	68.5	12.3	78.3	166.2	67.8	65.5	13.5	57.8	58.9	17.0	
1938	9.5	16.7	66	5.8	3.6	8.9	0.4	7.3	2.5	24.9	0.7	0.5	1.5	75.9	157.6	10.2	76.5	157.6	74.8	77.0	23.4	61.4	58.8	15.0	
1937	10.2	16.7	64	6.8	4.8	1.0	0.8	4.6	3.3	53.6	1.3	0.6	2.6	84.0	66.0	10.7	76.8	156.2	92.0	77.0	19.8	63.9	65.9	22.6	
Texas:																									
1939	8.9	17.4	67	5.0	4.7	1.6	0.3	4.1	2.2	24.0	1.1	0.3	0.3	59.2	67.9	12.2	61.7	165.5	58.4	70.0	29.5	53.9	62.8	22.3	
Utah:																									
1939	8.7	24.2	39	3.2	0.5	0.3	0.3	1.0	0.5	9.2	0.5	1.0	0.8	16.4	97.8	18.0	56.5	238.7	45.7	54.9	1.8	55.7	76.5	29.8	
1938	9.0	25.6	42	3.7	0.5	2.6	1.3	1.3	1.3	10.0	0.9	0.3	1.8	22.1	18.8	18.8	51.4	228.3	51.4	60.7	2.3	51.9	93.8	35.7	
1937	9.5	24.0	39	3.6	1.0	0.8	1.6	3.4	1.3	27.8	1.6	1.0	1.3	21.1	92.0	20.4	54.9	228.8	63.9	68.0	2.8	56.4	89.4	33.5	
Vermont:																									
1939	10.8	14.5	36	3.3	0.9	1.0	1.0	6.5	1.0	26.1	1.4	0.3	0.3	37.5	132.3	29.2	104.9	343.0	78.7	47.8	3.1	74.2	62.6	17.5	
1938	10.4	14.8	42	3.0	0.3	4.1	0.3	3.1	4.5	13.2	1.4	0.3	0.3	36.0	117.8	26.3	99.8	291.0	78.6	51.3	2.4	77.2	61.0	19.0	
1937	11.2	14.5	48	8.9	1.4	0.9	0.3	1.0	0.7	37.0	0.7	0.7	0.7	50.6	138.2	21.6	112.8	322.9	98.4	62.7	3.5	72.3	67.7	15.4	

DEATHS DURING WEEK ENDED JANUARY 20, 1940

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended Jan. 20, 1940	Correspond- ing week, 1939
Data from 88 large cities of the United States:		
Total deaths.....	9,369	8,923
Average for 3 prior years.....	9,584	
Total deaths, first 3 weeks of year.....	28,335	27,247
Deaths under 1 year of age.....	557	501
Average for 3 prior years.....	552	
Deaths under 1 year of age, first 3 weeks of year.....	1,685	1,612
Data from industrial insurance companies:		
Policies in force.....	66,384,377	68,391,428
Number of death claims.....	15,167	14,844
Death claims per 1,000 policies in force, annual rate.....	11.9	11.3
Death claims per 1,000 policies, first 3 weeks of year, annual rate.....	10.0	9.7

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

REPORTS FROM STATES FOR WEEK ENDED FEBRUARY 3, 1940

Summary

A sharp increase in influenza occurred during the week ended February 3, with 17,641 cases reported as compared with 13,242 and 12,568 for the 2 preceding weeks and with 4,310 for the corresponding median week of the 5-year period 1935-39. The figures for the current week approach the total of 18,135 recorded in the peak week of 1939 (March 11).

A total of 65,597 cases of influenza has been reported for the first 5 weeks of 1940, as compared with 17,122 cases for the first 5 median weeks of the 5-year period 1935-39.

The highest incidence of the disease persists in the South Atlantic and South Central States, four of which States in these groups reported considerable increases during the current week, while others remained about the same or showed small variations. As compared with the preceding week, the largest increases in these areas were those for Texas (from 2,158 to 4,497 cases), Virginia (from 2,107 to 2,450 cases), Alabama (from 900 to 1,247 cases), and Oklahoma (from 373 to 724 cases).

Other areas reporting a significantly higher incidence are the East North Central, where the number of cases increased from 201 to 667, and the three Pacific States in which the number of cases rose from 708 to 1,955.

For the current week decreases were recorded for meningococcic meningitis, poliomyelitis, and typhoid fever, while diphtheria, measles, scarlet fever, smallpox, and whooping cough showed small increases. All of these eight diseases, however, with the exception of poliomyelitis, remained below the 5-year median (1935-39).

Telegraphic morbidity reports from State health officers for the week ended Feb. 3, 1940, and comparison with corresponding week of 1939 and 5-year median

In these tables a zero indicates a definite report, while leaders imply that, although none were reported, cases may have occurred.

Division and State	Diphtheria			Influenza			Measles			Meningitis, meningococcus		
	Week ended		Med-ian, 1935-39	Week ended		Med-ian, 1935-39	Week ended		Med-ian, 1935-39	Week ended		Med-ian, 1935-39
	Feb. 3, 1940	Feb. 4, 1939		Feb. 3, 1940	Feb. 4, 1939		Feb. 3, 1940	Feb. 4, 1939		Feb. 3, 1940	Feb. 4, 1939	
NEW ENG.												
Maine.....	2	1	1	32	4	4	104	27	100	0	0	0
New Hampshire.....	0	0	0	—	—	—	16	1	34	0	1	0
Vermont.....	0	1	0	—	—	—	1	14	25	0	0	0
Massachusetts.....	4	4	4	—	—	—	292	775	513	0	0	2
Rhode Island.....	0	0	1	—	—	—	128	19	34	0	1	0
Connecticut.....	1	1	3	8	7	12	143	567	346	1	1	1
MID. ATL.												
New York ¹	27	26	39	119	159	128	254	908	908	1	7	12
New Jersey.....	10	8	15	42	56	35	34	27	156	1	3	3
Pennsylvania.....	43	60	61	—	—	—	86	222	643	5	10	6
E. NO. CEN.												
Ohio.....	18	40	40	118	—	122	21	22	150	2	2	7
Indiana.....	18	30	30	363	21	28	10	12	17	1	1	1
Illinois ²	19	52	49	130	36	54	30	37	37	0	4	9
Michigan ³	28	6	9	14	—	6	183	420	420	1	0	1
Wisconsin.....	1	0	2	42	68	68	230	789	789	0	0	1
W. NO. CEN.												
Minnesota.....	0	5	4	5	—	3	380	1,118	118	0	0	1
Iowa.....	1	8	8	11	1	12	72	170	45	0	0	2
Missouri.....	7	6	20	22	24	203	7	4	24	2	1	7
North Dakota.....	3	3	1	19	27	27	4	465	19	0	2	2
South Dakota.....	0	5	3	2	1	—	37	408	0	0	1	1
Nebraska.....	1	2	6	7	—	—	45	71	71	0	1	0
Kansas.....	4	5	8	143	6	29	329	11	18	0	0	1
SO. ATL.												
Delaware.....	0	0	1	—	—	—	3	0	33	0	0	0
Maryland ¹	8	4	7	119	61	61	5	1,046	149	0	0	0
Dist. of Col.....	9	3	7	24	5	4	0	18	13	0	0	4
Virginia.....	12	19	25	2,450	1,100	—	23	42	183	0	3	4
West Virginia.....	9	4	13	175	21	279	15	20	20	2	3	4
North Carolina.....	16	39	36	183	9	33	30	570	570	2	0	3
South Carolina ¹	3	17	11	1,674	772	772	5	18	40	2	2	2
Georgia ¹	6	8	8	1,104	131	259	46	97	0	1	1	2
Florida.....	5	11	12	20	—	10	30	61	27	0	1	1
E. SO. CEN.												
Kentucky.....	11	6	8	91	198	195	16	63	63	4	2	8
Tennessee ¹	8	9	14	370	58	172	74	42	25	1	3	4
Alabama ¹	7	12	15	1,247	269	301	41	90	90	0	5	3
Mississippi ²	5	6	6	—	—	—	—	—	—	0	2	1
W. SO. CEN.												
Arkansas.....	17	9	5	1,587	159	159	28	104	14	1	1	1
Louisiana ¹	9	8	14	121	10	24	3	95	37	0	0	0
Oklahoma.....	13	9	10	724	162	190	0	135	48	0	1	2
Texas ¹	41	54	60	4,497	699	744	270	92	140	2	0	4
MOUNTAIN												
Montana.....	1	0	1	16	25	26	63	579	39	0	0	1
Idaho.....	0	0	0	2	1	6	125	28	29	0	1	0
Wyoming.....	2	0	0	4	—	—	5	94	6	0	1	1
Colorado.....	6	12	10	24	35	—	28	54	54	1	1	1
New Mexico.....	4	1	5	12	6	9	18	31	31	0	0	0
Arizona.....	12	2	2	288	68	125	4	8	9	1	1	0
Utah ¹	2	3	2	28	20	—	255	38	38	0	0	0
PACIFIC												
Washington.....	0	3	5	324	—	2	1,180	182	146	0	0	0
Oregon.....	4	2	2	191	25	59	163	35	35	2	1	1
California.....	24	34	34	1,440	76	131	428	1,954	311	1	1	3
Total.....	421	538	648	17,641	4,310	4,310	5,264	11,583	11,583	34	65	127
8 weeks.....	2,250	3,027	3,409	65,597	17,075	17,075	20,897	48,238	48,238	163	275	463

See footnotes at end of table.

Telegraphic morbidity reports from State health officers for the week ended Feb. 3, 1940, and comparison with corresponding week of 1939 and 5-year median—Con.

Division and State	Poliomyelitis			Scarlet fever			Smallpox			Typhoid and paratyphoid fever		
	Week ended		Me- dian, 1935- 39	Week ended		Me- dian, 1935- 39	Week ended		Me- dian, 1935- 39	Week ended		Me- dian, 1935- 39
	Feb. 3, 1940	Feb. 4, 1939		Feb. 3, 1940	Feb. 4, 1939		Feb. 3, 1940	Feb. 4, 1939		Feb. 3, 1940	Feb. 4, 1939	
NEW ENG.												
Maine.....	0	0	0	19	18	19	0	0	0	0	0	0
New Hampshire.....	0	0	0	3	4	6	0	0	0	0	0	0
Vermont.....	0	0	0	20	1	21	0	0	0	0	0	0
Massachusetts.....	0	0	0	119	205	228	0	0	0	3	1	2
Rhode Island.....	1	0	0	0	7	15	0	0	0	0	0	0
Connecticut.....	0	0	0	77	107	93	0	0	0	8	0	0
MID. ATL.												
New York ¹	1	1	1	581	490	698	0	0	0	5	8	8
New Jersey.....	2	2	1	340	175	161	0	0	0	2	2	2
Pennsylvania.....	0	0	0	468	475	496	0	0	0	9	8	8
E. NO. CEN.												
Ohio.....	2	0	0	444	624	472	2	45	2	0	0	2
Indiana.....	0	0	0	206	253	229	4	118	5	2	1	1
Illinois ¹	2	2	1	579	583	684	2	5	6	8	3	4
Michigan ¹	0	0	0	298	574	474	0	4	1	0	1	3
Wisconsin.....	1	0	0	172	260	295	2	8	8	0	1	1
W. NO. CEN.												
Minnesota.....	0	0	0	136	136	137	13	17	9	0	0	1
Iowa.....	1	0	0	74	130	186	5	48	33	3	0	2
Missouri.....	0	0	0	53	115	163	2	12	12	1	0	3
North Dakota.....	0	0	0	52	24	40	0	1	7	0	0	0
South Dakota.....	0	0	0	25	29	29	6	11	11	0	0	0
Nebraska.....	0	0	0	25	42	70	0	3	8	0	0	0
Kansas.....	0	0	0	121	192	226	0	16	11	0	0	1
SO. ATL.												
Delaware.....	0	0	0	9	0	6	0	0	0	2	0	0
Maryland ¹	0	0	0	56	37	56	0	0	0	1	0	1
Dist. of Col.....	0	0	0	23	19	19	0	0	0	0	1	1
Virginia.....	0	1	0	37	40	40	0	0	0	3	5	6
West Virginia.....	0	1	1	54	50	46	0	2	0	0	0	2
North Carolina ¹	2	0	0	46	54	39	0	0	1	0	2	2
South Carolina ¹	1	3	1	4	16	8	0	1	0	3	1	2
Georgia.....	2	1	0	19	27	20	0	0	0	1	3	3
Florida.....	0	0	0	21	22	13	0	0	0	1	2	2
E. SO. CEN.												
Kentucky.....	0	1	1	77	88	76	0	3	0	0	1	2
Tennessee ¹	0	0	0	80	38	38	0	0	0	0	1	3
Alabama ¹	0	1	0	9	29	19	0	0	1	1	6	4
Mississippi ¹	1	1	1	10	12	12	0	1	1	2	3	2
W. SO. CEN.												
Arkansas.....	0	0	0	11	21	9	3	1	2	1	4	1
Louisiana ¹	0	1	0	15	29	16	0	1	1	5	9	6
Oklahoma.....	1	0	0	31	67	36	0	54	0	1	3	3
Texas ¹	0	0	0	80	113	113	5	38	7	6	14	11
MOUNTAIN												
Montana.....	0	0	0	52	29	60	0	2	9	0	1	1
Idaho.....	1	0	0	0	8	13	0	10	8	0	0	0
Wyoming.....	0	0	0	5	2	27	0	0	1	0	0	0
Colorado.....	2	1	0	66	46	84	20	6	5	0	4	1
New Mexico.....	0	0	0	30	9	24	0	1	1	0	0	3
Arizona.....	0	0	0	8	7	22	1	23	0	1	1	0
Utah ¹	0	0	0	28	38	72	1	0	0	1	0	0
PACIFIC												
Washington.....	1	1	1	54	89	89	0	8	12	2	5	3
Oregon.....	1	1	0	34	47	47	0	5	8	2	0	0
California.....	9	0	2	197	220	273	6	11	10	0	5	5
Total.....	31	18	21	4,868	5,601	6,207	72	455	313	74	96	118
5 weeks.....	182	85	106	21,356	26,182	29,791	391	2,003	1,457	403	554	589

See footnotes at end of table.

Telegraphic morbidity reports from State health officers for the week ended Feb. 8, 1940, and comparison with corresponding week of 1939 and 5-year median—Con.

Division and State	Whooping cough, week ending—		Division and State	Whooping cough, week ending—	
	Feb. 3, 1940	Feb. 4, 1939		Feb. 3, 1940	Feb. 4, 1939
NEW ENG.			SO. ATL.—Contd.		
Maine.....	57	29	North Carolina.....	53	313
New Hampshire.....	2	10	South Carolina ¹	17	73
Vermont.....	23	90	Georgia ¹	13	26
Massachusetts.....	144	225	Florida.....	9	36
Rhode Island.....	17	37			
Connecticut.....	74	84	E. SO. CEN.		
MID. ATL.			Kentucky.....	63	23
New York ¹	439	395	Tennessee ¹	27	54
New Jersey.....	93	386	Alabama ¹	22	8
Pennsylvania.....	372	630	Mississippi ¹		
E. NO. CEN.			W. SO. CEN.		
Ohio.....	205	170	Arkansas.....	1	24
Indiana.....	45	23	Louisiana ¹	22	5
Illinois ²	91	352	Oklahoma.....	1	1
Michigan ³	120	232	Texas ⁴	107	113
Wisconsin.....	175	293			
W. NO. CEN.			MOUNTAIN		
Minnesota.....	52	65	Montana.....	1	14
Iowa.....	4	19	Idaho.....	2	3
Missouri.....	19	28	Wyoming.....	22	2
North Dakota.....	26	33	Colorado.....	50	45
South Dakota.....	5	24	New Mexico.....	45	9
Nebraska.....	6	1	Arizona.....	9	17
Kansas.....	36	21	Utah ⁵	139	17
SO. ATL.			PACIFIC		
Delaware.....	2	3	Washington.....	35	39
Maryland ¹	127	28	Oregon.....	29	29
Dist. of Col.....	9	31	California.....	194	117
Virginia.....	62	39			
West Virginia.....	7	30	Total.....	3,073	4,246
			5 weeks.....	13,478	21,705

¹ New York City only.

² Rocky Mountain spotted fever, week ended Feb. 3, 1940, 2 cases, as follows: New York, 1; Illinois, 1.

³ Period ended earlier than Saturday.

⁴ Typhus fever, week ended Feb. 3, 1940, 27 cases, as follows: South Carolina, 2; Georgia, 8; Tennessee, 2; Alabama, 4; Louisiana, 1; Texas, 10.

⁵ A later report increases to 189 the total reported cases of scarlet fever in Indiana for the week ended Jan. 27, Public Health Reports dated Feb. 2, 1940, p. 217.

BUBONIC PLAGUE IN UTAH

One case of bubonic plague was reported under date of February 6, 1940, by Dr. William M. McKay, Acting State Health Commissioner of Utah. The case, moderately severe, in a 29-year-old patient, is stated to have had its onset on December 4, 1939, and probably to have been contracted in skinning a coyote.

WEEKLY REPORTS FROM CITIES

City reports for week ended January 20, 1940

This table summarizes the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table.

State and city	Diph- theria cases	Influenza		Meas- sles cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whoop- ing cough cases	Deaths, all causes
		Cases	Deaths								
Data for 90 cities:											
5-year average	193	1,324	154	2,816	1,027	1,823	41	379	20	1,188	-----
Current week	112	1,190	92	797	642	1,195	1	295	19	803	-----
Maine:											
Portland	0	-----	0	11	1	0	0	0	0	7	35
New Hampshire:											
Concord	0	-----	1	0	1	0	0	0	0	0	10
Manchester	0	-----	0	1	5	2	0	0	0	0	35
Nashua	0	-----	0	11	0	2	0	0	0	0	4
Vermont:											
Barre	0	-----	0	0	0	0	0	0	0	0	2
Burlington	0	-----	0	0	0	0	0	0	0	2	12
Rutland	0	-----	0	0	0	0	0	0	0	0	6
Massachusetts:											
Boston	2	-----	0	18	14	45	0	8	1	44	239
Fall River	2	-----	0	1	4	1	0	0	0	12	33
Springfield	0	-----	0	1	2	1	0	1	0	13	43
Worcester	0	-----	0	0	10	4	0	1	1	0	55
Rhode Island:											
Pawtucket	0	-----	0	0	0	0	0	0	0	0	14
Providence	0	2	1	119	6	6	0	0	0	12	67
Connecticut:											
Bridgeport	0	-----	0	0	0	4	0	0	0	0	39
Hartford	4	-----	0	1	3	4	0	3	0	8	69
New Haven	0	1	0	4	3	3	0	2	0	3	48
New York:											
Buffalo	0	-----	0	1	15	16	0	5	0	3	177
New York	30	19	2	26	92	249	0	83	6	100	1,598
Rochester	0	-----	0	0	3	7	0	0	0	14	66
Syracuse	0	-----	0	0	5	4	0	1	0	25	55
New Jersey:											
Camden	2	1	2	1	4	16	0	1	0	0	37
Newark	0	7	1	5	8	18	0	8	0	16	116
Trenton	0	-----	1	1	4	3	0	3	0	0	33
Pennsylvania:											
Philadelphia	4	22	5	11	38	63	0	24	0	54	614
Pittsburgh	3	16	10	3	20	26	0	5	0	13	208
Reading	0	-----	1	1	9	0	0	1	0	3	45
Scranton	0	1	-----	0	-----	4	0	-----	0	6	-----
Ohio:											
Cincinnati	7	1	3	3	5	15	0	7	0	15	133
Cleveland	1	24	2	1	12	41	0	4	0	44	183
Columbus	4	2	2	0	7	8	0	4	0	7	102
Toledo	1	-----	0	1	4	15	0	3	0	7	64
Indiana:											
Anderson	0	-----	0	0	3	7	0	0	0	0	11
Fort Wayne	0	-----	0	0	1	0	0	0	0	1	26
Indianapolis	6	-----	1	2	9	25	0	6	0	5	110
Muncie	0	-----	0	0	3	1	0	0	0	0	16
South Bend	0	-----	0	0	1	2	0	0	0	5	19
Terre Haute	0	-----	0	0	4	1	0	0	0	0	35
Illinois:											
Alton	0	1	1	0	3	3	0	0	0	0	14
Chicago	10	13	2	19	54	218	0	20	1	34	766
Elgin	0	-----	0	0	1	5	0	0	0	0	9
Moline	0	1	0	2	0	3	0	0	0	0	11
Springfield	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Michigan:											
Detroit	6	1	0	7	18	89	0	12	0	27	283
Flint	0	-----	0	3	15	0	0	0	0	12	34
Grand Rapids	0	-----	0	1	3	26	0	0	0	10	48
Wisconsin:											
Kenosha	1	-----	0	0	1	6	0	0	0	1	8
Madison	0	-----	0	1	1	2	0	0	0	6	6
Milwaukee	0	1	1	2	8	25	0	4	0	4	92
Racine	0	-----	0	0	0	2	0	0	0	2	12
Superior	0	-----	0	0	0	6	0	0	0	0	6

¹ Figures for Springfield, Ill., Wilmington, N. C., and Seattle, Wash., estimated; reports not received.

City reports for week ended January 20, 1940—Continued

State and city	Diph- theria cases	Influenza		Meas- les cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whoop- ing cough cases	Deaths, all causes
		Cases	Deaths								
Minnesota:											
Duluth.....	0		0	134	0	2	0	1	0	6	26
Minneapolis.....	0		1	1	11	31	0	1	0	10	108
St. Paul.....	0		0	1	5	15	0	1	0	34	54
Iowa:											
Cedar Rapids.....	1			13		1	0		0	1	
Davenport.....	0			2		5	0		0	0	
Des Moines.....	1		0	13	0	23	0	0	0	0	34
Sioux City.....	0			0		6	0		0	0	
Waterloo.....	0			0		2	0		0	0	
Missouri:											
Kansas City.....	1		0	1	15	10	0	1	0	0	103
St. Joseph.....	0		0	0	2	1	0	0	0	0	16
St. Louis.....	0	1	1	0	15	19	1	3	1	9	205
North Dakota:											
Fargo.....	0		0	0	1	1	0	0	0	2	7
Grand Forks.....	0			2		0	0		0	7	
Minot.....	0		0	0	0	0	0	0	0	0	5
South Dakota:											
Aberdeen.....	0			1		3	0		0	3	
Sioux Falls.....	0		0	0	0	1	0	0	0	0	9
Nebraska:											
Lincoln.....	0			1		1	0		0	0	
Omaha.....	0		1	1	14	1	0	3	0	0	61
Kansas:											
Topeka.....	0	3	3	0	2	6	0	0	0	0	19
Wichita.....	0	7	0	149	9	3	0	1	0	1	43
Delaware:											
Wilmington.....	0		0	2	3	5	0	0	0	1	36
Maryland:											
Baltimore.....	4	37	3	2	24	9	0	16	1	76	275
Cumberland.....	0	1	2	1	3	2	0	0	0	0	19
Frederick.....	0		0	0	0	0	0	0	0	0	1
Dist. of Col.:											
Washington.....	0	9	3	7	19	21	0	8	0	8	177
Virginia:											
Lynchburg.....	0		0	0	0	0	0	1	0	1	21
Norfolk.....	0	18	0	1	6	4	0	1	0	0	33
Richmond.....	0		0	0	10	2	0	0	0	1	78
Roanoke.....	0		0	0	3	2	0	0	0	13	17
West Virginia:											
Charleston.....	0		0	0	1	0	0	0	0	0	19
Wheeling.....	0		0	0	1	1	0	0	0	1	21
North Carolina:											
Gastonia.....	2	1	0	0	0	0	0	0	0	0	1
Raleigh.....	0		0	0	1	1	0	3	0	3	20
Wilmington.....											
Winston-Salem.....	0		0	0	1	1	0	1	0	0	23
South Carolina:											
Charleston.....	0	534	1	0	5	3	0	0	3	0	24
Florence.....	0	4	1	0	4	0	0	0	0	0	8
Greenville.....	0		0	0	0	0	0	0	0	0	3
Georgia:											
Atlanta.....	3	235	1	7	6	5	0	4	0	4	78
Brunswick.....	0		0	2	1	3	0	0	0	0	3
Savannah.....	2	106	7	0	2	2	0	2	0	1	43
Florida:											
Miami.....	0	4	1	1	1	0	0	1	0	2	44
Tampa.....	1	4	3	4	2	1	0	1	0	0	39
Kentucky:											
Ashland.....	0	1	0	0	6	0	0	0	0	2	7
Covington.....	0		0	0	2	2	0	3	0	0	20
Lexington.....	1		0	0	0	2	0	3	0	1	18
Louisville.....	2	6	0	6	14	13	0	1	0	51	87
Tennessee:											
Knoxville.....	0	5	1	0	4	4	0	0	0	0	28
Memphis.....	1	21	1	3	10	20	0	7	0	11	117
Nashville.....	0		4	10	6	0	0	2	0	2	56
Alabama:											
Birmingham.....	0	16	6	0	4	2	0	5	2	1	68
Mobile.....	0	18	2	0	2	3	0	1	0	0	32
Montgomery.....	0	12		10		1	0	0		0	
Arkansas:											
Fort Smith.....	0	8		0		0	0		0	0	
Little Rock.....	0	10	0	0	2	3	0	1	0	0	12
Louisiana:											
Lake Charles.....	0		0	0	0	1	0	0	0	0	2
New Orleans.....	3	3	4	0	31	9	0	11	2	11	206
Shreveport.....	0		0	1	5	0	0	0	0	0	30

City reports for week ended January 29, 1940—Continued

State and city	Diph- theria cases	Influenza		Mea- sles cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whoop- ing cough cases	Deaths, all causes
		Cases	Deaths								
Oklahoma:											
Oklahoma City.....	0		0	2	5	2	0	1	0	0	42
Tulsa.....	1			0		0	0		0	5	
Texas:											
Dallas.....	1	2	2	2	1	3	0	0	0	6	70
Fort Worth.....	1		0	0	4	4	0	1	0	1	38
Galveston.....	0		0	0	2	1	0	0	0	0	16
Houston.....	3		1	1	10	4	0	3	0	0	90
San Antonio.....	0		1	37	5	0	0	5	0	0	74
Montana:											
Billings.....	0		0	0	3	0	0	0	0	0	6
Great Falls.....	0		0	0	1	2	0	0	0	0	8
Helena.....	0		0	0	0	0	0	0	0	0	1
Missoula.....	0		0	0	0	2	0	0	0	5	2
Idaho:											
Boise.....	0		0	0	0	0	0	0	0	0	4
Colorado:											
Colorado Springs.....	0		0	2	0	1	0	0	0	0	19
Denver.....	9		1	4	5	8	0	2	0	3	82
Pueblo.....	0		0	0	1	1	0	0	0	4	9
New Mexico:											
Albuquerque.....	1		0	1	1	1	0	0	0	5	9
Utah:											
Salt Lake City.....	0		2	22	1	6	0	2	0	56	36
Washington:											
Seattle.....											
Spokane.....	0	3	2	0	0	3	0	0	0	4	39
Tacoma.....	0		0	121	1	7	0	2	0	0	46
Oregon:											
Portland.....	1	16	1	55	6	6	0	0	0	4	98
Salem.....	0			7		0	0		0	0	
California:											
Los Angeles.....	0	66	5	15	12	19	0	24	0	14	369
Sacramento.....	2	1	0	3	4	0	0	1	1	2	28
San Francisco.....	0	3	0	3	6	8	0	7	0	8	182

State and city	Meningitis, meningococcus		Polio- mye- litis cases	State and city	Meningitis, meningococcus		Polio- mye- litis cases
	Cases	Deaths			Cases	Deaths	
Massachusetts:				Iowa:			
Boston.....	0	0	1	Sioux City.....	1	0	0
New York:				District of Columbia:			
New York.....	2	1	0	Washington.....	0	0	1
Pennsylvania:				Georgia:			
Philadelphia.....	0	0	1	Atlanta.....	1	0	0
Pittsburgh.....	1	1	0	Colorado:			
Scranton.....	0	1	0	Colorado Springs.....	0	0	1
Ohio:				Oregon:			
Columbus.....	1	2	0	Portland.....	0	1	0
Indiana:				California:			
Anderson.....	0	0	1	Los Angeles.....	0	0	1
Illinois:				Sacramento.....	1	0	0
Chicago.....	1	0	0				
Wisconsin:							
Milwaukee.....	1	1	0				

Encephalitis, epidemic or lethargic.—Cases: Bridgeport, 1; New York, 2; Great Falls, 1; San Francisco, 1.

Pellagra.—Cases: Boston, 1; Charleston, S. C., 3; San Francisco, 1.

Typhus fever.—Cases: Savannah, 1; Mobile, 1; Montgomery, 1; New Orleans, 1.

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—Week ended December 23, 1939.—During the week ended December 23, 1939, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada, as follows:

Disease	Prince Edward Island	Nova Scotia	New Brun- swick	Que- bec	On- tario	Mani- toba	Sas- katch- ewan	Alber- ta	British Colum- bia	Total
Cerebrospinal meningitis					1					1
Chickenpox		19		252	270	72	30	11	23	677
Diphtheria			10	32	1	10	5			58
Influenza		1			5				10	17
Measles				149	103	16	101	5	16	390
Mumps				39	122	7	17		4	189
Pneumonia		5			28				5	38
Poliomyelitis				1	1					2
Scarlet fever	3		8	86	162	8	16	28	15	326
Tuberculosis		2	8	62	37		1			110
Typhoid and para- typhoid fever				12	1	1				14
Whooping cough				40	60	43	29	4	7	183

ITALY

Communicable diseases—4 weeks ended November 5, 1939.—During the 4 weeks ended November 5, 1939, cases of certain communicable diseases were reported in Italy as follows:

Disease	Oct. 9-15	Oct. 16-22	Oct. 23-29	Oct. 30- Nov. 5
Anthrax	19	16	19	29
Cerebrospinal meningitis	11	10	16	15
Chickenpox	55	84	113	82
Diphtheria	659	646	708	753
Dysentery (amoebic)	14	21	14	5
Dysentery (bacillary)	12	9		4
Hookworm disease	15	18	36	15
Lethargic encephalitis		1		1
Measles	216	286	287	317
Mumps	85	90	89	76
Paratyphoid fever	133	159	94	120
Pellagra		2	1	
Poliomyelitis	159	161	128	95
Puerperal fever	32	25	30	25
Rabies	1			1
Scarlet fever	196	259	204	282
Typhoid fever	1,008	983	767	667
Undulant fever	44	41	27	31
Whooping cough	236	301	271	201

SWEDEN

Notifiable diseases—October 1939.—During the month of October 1939, cases of certain notifiable diseases were reported in Sweden as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis.....	6	Pollomyelitis.....	129
Diphtheria.....	7	Scarlet fever.....	3, 114
Dysentery.....	9	Syphilis.....	31
Epidemic encephalitis.....	6	Typhoid fever.....	6
Gonorrhea.....	1, 038	Undulant fever.....	5
Paratyphoid fever.....	21	Weil's disease.....	10

REPORTS OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER RECEIVED DURING THE CURRENT WEEK

NOTE.—A cumulative table giving current information regarding the world prevalence of quarantinable diseases appeared in the PUBLIC HEALTH REPORTS of January 26, 1940, pages 182-186. A similar table will appear in future issues of the PUBLIC HEALTH REPORTS for the last Friday of each month.

Plague

Hawaii Territory—Island of Hawaii—Hamakua District—Paauhau Area.—A rat found on January 3, 1940, in Paauhau area, Hamakua District, Island of Hawaii, T. H., has been proved positive for plague.

Peru.—Plague has been reported in Peru as follows: October 1939, Cajamarca Department, 2 cases; Lambayeque Department, 1 case; Lima Department, 5 cases, 2 deaths. November 1939, Lambayeque Department, 2 cases, 2 deaths; Libertad Department, 1 case; Lima Department, 5 cases, 5 deaths; Piura Department, 3 cases.

United States—Utah.—Report of a case of bubonic plague in Utah appears on page 258 of this issue of the PUBLIC HEALTH REPORTS.

Yellow Fever

Cameroon—Nkongsamba.—On January 22, 1940, 1 suspected case of yellow fever was reported in Nkongsamba, Cameroon.

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